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GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:56:07 ; Search time 12.68 Seconds
(without alignments)
35.120 Million cell updates/sec

Title: US-09-576-724-2
Perfect score: 72
Sequence: 1 CITQYQRESQAYY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 93435 seqs, 34255486 residues

Total number of hits satisfying chosen parameters: 93435

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_39:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	72	100.0	256	1	PRIO_CAPHI	P52113 capra hircu
2	72	100.0	256	1	PRIO_ODOHE	P47852 odocoileus
3	72	100.0	256	1	PRIO_SHEEP	P23907 ovis aries
4	72	100.0	256	1	PRP2_BOVIN	Q01880 bos taurus
5	72	100.0	264	1	PRIO_BOVIN	P10279 bos taurus
6	69	95.8	232	1	PRIO_ATEGE	P40246 ateles geof
7	69	95.8	238	1	PRIO_THEGE	Q95270 theropithec
8	69	95.8	252	1	PRIO_ATEPA	P51446 ateles pani
9	69	95.8	252	1	PRIO_CEBAP	P40249 cebus apell
10	69	95.8	253	1	PRIO_GORGO	P40252 gorilla gor
11	69	95.8	253	1	PRIO_HUMAN	P04156 homo sapien
12	69	95.8	253	1	PRIO_PANTR	P40253 pan troglod
13	69	95.8	253	1	PRIO_PONPY	P40256 pongo pygma
14	69	95.8	255	1	PRIO_CANFA	O46501 canis famil
15	69	95.8	256	1	PRIO_CEREL	P79142 cervus elap
16	69	95.8	256	1	PRP2_TRAST	P40243 tragelaphus
17	69	95.8	264	1	PRP1_TRAST	P40242 tragelaphus
18	68	94.4	254	1	PRIO_CRIGR	Q60506 cricetulus
19	68	94.4	254	1	PRIO_CRIMI	Q60468 cricetulus
20	68	94.4	254	1	PRIO_MOUSE	P04925 mus musculu
21	68	94.4	254	1	PRIO_RAT	P13852 rattus norv
22	68	94.4	257	1	PRIO_MUSVI	P40244 mustela vis
23	66	91.7	238	1	PRIO_CERAT	Q95145 cercocebus
24	66	91.7	239	1	PRIO_AOTTR	P40245 aotus trivi
25	66	91.7	241	1	PRIO_CALMO	P40248 callicebus
26	66	91.7	241	1	PRIO_MANSP	P40255 mandrillus
27	66	91.7	245	1	PRIO_CERAE	P40250 cercopithec
28	66	91.7	246	1	PRIO_CERMO	Q95172 cercopithec
29	66	91.7	246	1	PRIO_CERPA	Q95174 cercopithec
30	66	91.7	246	1	PRIO_CERTO	Q95176 cercocebus
31	66	91.7	252	1	PRIO_CALJA	P40247 callithrix
32	66	91.7	253	1	PRIO_COLGU	P40251 colobus gue
33	66	91.7	253	1	PRIO_MACFA	P40254 macaca fasc
34	66	91.7	253	1	PRIO_PREFR	P40257 presbyt
35	66	91.7	260	1	PRIO_SAISC	P40258 saimiri sci
36	65	90.3	256	1	PRIO_FELCA	O18754 felis silve
37	64	88.9	254	1	PRIO_MESAU	P04273 mesocricetu
38	64	88.9	257	1	PRIO_MUSPF	P52114 mustela put
39	59	81.9	252	1	PRIO_RABIT	Q95211 oryctolagus
40	57	79.2	255	1	PRIO_CAMDR	P79141 camelus dro
41	53	73.6	257	1	PRIO_PIG	P49927 sus scrofa
42	43	59.7	259	1	PRIO_TRIVU	P51780 trichosurus
43	39	54.2	1030	1	SPAB_BACSU	P39774 bacillus su
44	38	52.8	122	1	SSB_BPB03	Q37885 bacteriopha
45	38	52.8	703	1	POP2_SCHPO	O14170 s hizosacch

ALIGNMENTS

RESULT 1
PRIO_CAPHI
ID PRIO_CAPHI STANDARD; PRT; 256 AA.
AC P52113;
DT 01-OCT-1996 (Rel. 34, Created)
DT 01-OCT-1996 (Rel. 34, Last sequence update)
DT 15-DEC-1998 (Rel. 37, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP).
GN PRNP OR PRP.
OS Capra hircus (Goat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC Bovidae; Caprinae; Capra.
OX NCBI_TaxID=9925;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=ANGLO-NUBIAN; TISSUE=Peripheral blood lymphocytes;
RA Martin T.C., Hughes S.L., Hughes K.J., Dawson M.;
RL Submitted (SEP-1993) to the EMBL/GenBank/DDBJ databases.
RN [2]
RP SEQUENCE FROM N.A., AND VARIANT MET-142.
RC STRAIN=ANGLO-NUBIAN;
RX MEDLINE=97081203; PubMed=8922485;
RA Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,
RA Dawson M., Hunter N.;
RT "Novel polymorphisms in the caprine PrP gene: a codon 142 mutation
RT associated with scrapie incubation period.";
RL J. Gen. Virol. 77:2885-2891(1996).
RN [3]
RP ERRATUM.
RA Goldmann W., Martin T., Foster J., Hughes S., Smith G., Hughes K.,
RA Dawson M., Hunter N.;
RL J. Gen. Virol. 78:697-697(1997).
RN [4]
RP SEQUENCE FROM N.A.
RC STRAIN=AFRICAN DWARF; TISSUE=Blood;
RX MEDLINE=96356540; PubMed=8746958;
RA Obermaier G., Kretzschmar H.A., Hafner A., Heubeck D., Dahme E.;
RT "Spongiform central nervous system myelinopathy in African dwarf
RT goats.";
RL J. Comp. Pathol. 113:357-372(1995).
CC -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -!- DISEASE: POLYMORPHISM AT POSITION 171 MAY BE RELATED TO THE
CC ALLELES OF SCARPIE INCUBATION-CONTROL (SIC) GENE IN THIS SPECIES.
CC -!- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KURU,
CC CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC ---

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CC   ----------------------------------------------------------------------
DR   EMBL; X74758; CAA52774.1; -.
DR   EMBL; X91999; CAA63050.1; -.
DR   EMBL; S82626; AAD14409.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL       1     24       BY SIMILARITY.
FT   CHAIN       25    256       MAJOR PRION PROTEIN.
FT   CARBOHYD   184    184       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   200    200       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DISULFID   182    217       BY SIMILARITY.
FT   DOMAIN      54     95       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                               Q.
FT   REPEAT      54     62       1.
FT   REPEAT      63     70       2.
FT   REPEAT      71     78       3.
FT   REPEAT      79     86       4.
FT   REPEAT      87     95       5.
FT   VARIANT    142    142       I -> M (APPEARS TO BE ASSOCIATED WITH
FT                               DIFFERING DISEASE INCUBATION PERIODS IN
FT                               GOATS EXPERIMENTALLY INFECTED WITH
FT                               ISOLATES OF BOVINE SPONGIFORM
FT                               ENCEPHALOPATHY OR SHEEP SCRAPIE).
SQ   SEQUENCE   256 AA;  27897 MW;  BDA5795F6FD99746 CRC64;
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  Query Match             100.0%;  Score 72;  DB 1;  Length 256;
  Best Local Similarity   100.0%;  Pred. No. 2e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    217 CITQYQRESQAYY 229
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RESULT   2
PRIO_ODOHE
ID   PRIO_ODOHE     STANDARD;      PRT;   256 AA.
AC   P47852;
DT   01-FEB-1996 (Rel. 33, Created)
DT   01-FEB-1996 (Rel. 33, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP).
GN   PRNP.
OS   Odocoileus hemionus (Mule deer) (Black-tailed deer).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoidea;
OC   Cervidae; Odocoileinae; Odocoileus.
OX   NCBI_TaxID=9872;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=97393774; PubMed=9250209;
RA   Cervenakova L., Rohwer R., Williams S., Brown P., Gajdusek D.C.;
RT   "High sequence homology of the PrP gene in mule deer and Rocky
RT   Mountain elk.";
RL   Lancet 350:219-220(1997).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR
CC       (BY SIMILARITY).
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CC   -!- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF ANIMALS INFECTED
CC       WITH THE DEGENERATIVE NEUROLOGICAL DISEASE KNOWN AS CHRONIC
CC       WASTING DISEASE (CWD).
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   ----------------------------------------------------------------------
DR   EMBL; U25965; AAA68941.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL       1     24       BY SIMILARITY.
FT   CHAIN       25    256       MAJOR PRION PROTEIN.
FT   CARBOHYD   184    184       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   200    200       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DISULFID   182    217       BY SIMILARITY.
FT   DOMAIN      54     95       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                               Q.
FT   REPEAT      54     62       1.
FT   REPEAT      63     70       2.
FT   REPEAT      71     78       3.
FT   REPEAT      79     86       4.
FT   REPEAT      87     95       5.
SQ   SEQUENCE   256 AA;  27961 MW;  E98EB121C302FD36 CRC64;
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  Query Match             100.0%;  Score 72;  DB 1;  Length 256;
  Best Local Similarity   100.0%;  Pred. No. 2e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    217 CITQYQRESQAYY 229
```

```
RESULT   3
PRIO_SHEEP
ID   PRIO_SHEEP     STANDARD;      PRT;   256 AA.
AC   P23907;
DT   01-NOV-1991 (Rel. 20, Created)
DT   01-NOV-1991 (Rel. 20, Last sequence update)
DT   15-DEC-1998 (Rel. 37, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP).
GN   PRNP OR PRP.
OS   Ovis aries (Sheep).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Caprinae; Ovis.
OX   NCBI_TaxID=9940;
RN   [1]
RP   SEQUENCE FROM N.A., AND VARIANT GLN-171.
RC   STRAIN=SUFFOLK; TISSUE=Spleen;
RX   MEDLINE=90207218; PubMed=1969635;
RA   Goldmann W., Hunter N., Foster J.D., Salbaum J.M., Beyreuther K.,
RA   Hope J.;
RT   "Two alleles of a neural protein gene linked to scrapie in sheep.";
RL   Proc. Natl. Acad. Sci. U.S.A. 87:2476-2480(1990).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Liver;
RA   Inoue S., Watanabe A., Horiuchi M., Ishiguro N., Shinagawa M.;
RL   Submitted (SEP-1994) to the EMBL/GenBank/DDBJ databases.
RN   [3]
```

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RP   SEQUENCE FROM N.A.
RC   STRAIN=SUFFOLK; TISSUE=Brain;
RX   MEDLINE=95011594; PubMed=7926780;
RA   Westaway D., Zuliani V., Cooper C.M., da Costa M., Neuman S.,
RA   Jenny A.L., Detwiler L., Prusiner S.B.;
RT   "Homozygosity for prion protein alleles encoding glutamine-171
RT   renders sheep susceptible to natural scrapie.";
RL   Genes Dev. 8:959-969(1994).
RN   [4]
RP   VARIANTS SCRAPIE VAL-136; HIS-154 AND GLN-171.
RX   MEDLINE=92013957; PubMed=1681027;
RA   Goldmann W., Hunter N., Benson G., Foster J.D., Hope J.;
RT   "Different scrapie-associated fibril proteins (PrP) are encoded by
RT   lines of sheep selected for different alleles of the Sip gene.";
RL   J. Gen. Virol. 72:2411-2417(1991).
RN   [5]
RP   VARIANTS SCRAPIE THR-112; VAL-136 AND HIS-154.
RX   MEDLINE=93162675; PubMed=8094373;
RA   Laplanche J.L., Chatelain J., Westaway D., Thomas S., Dussaucy M.,
RA   Brugere-Picoux J., Launay J.M.;
RT   "PrP polymorphisms associated with natural scrapie discovered by
RT   denaturing gradient gel electrophoresis.";
RL   Genomics 15:30-37(1993).
RN   [6]
RP   VARIANTS SCRAPIE VAL-136 AND HIS-171, AND VARIANT HIS-154.
RX   MEDLINE=95205072; PubMed=7897344;
RA   Belt P.B.G.M., Muileman I.H., Schreuder B.E.C., Bos-De Ruijter J.,
RA   Gielkens A.L.J., Smits M.A.;
RT   "Identification of five allelic variants of the sheep PrP gene and
RT   their association with natural scrapie.";
RL   J. Gen. Virol. 76:509-517(1995).
RN   [7]
RP   VARIANTS THR-137; PHE-141 AND GLN-211.
RX   MEDLINE=97042305; PubMed=8887505;
RA   Bossers A., Schreuder B.E.C., Muileman I.H., Belt P.B.G.M.,
RA   Smits M.A.;
RT   "PrP genotype contributes to determining survival times of sheep with
RT   natural scrapie.";
RL   J. Gen. Virol. 77:2669-2673(1996).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: POLYMORPHISM AT POSITION 171 MAY BE RELATED TO THE
CC       ALLELES OF SCRAPIE INCUBATION-CONTROL (SIC) GENE IN THIS SPECIES.
CC   -!- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC       INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- DISEASE: SCRAPIE IS A TRANSMISSIBLE NEURODEGENERATIVE DISORDER OF
CC       SHEEP AND GOATS. MOST SHEEP THAT CONTRACT THE DISEASE NATURALLY
CC       DIE BETWEEN 24 AND 50 MONTHS OF AGE. THE INCUBATION PERIOD IN
CC       SHEEP DEPENDS ON THE STRAIN(S) OF THE INFECTING PATHOGEN, SHEEP
CC       AGE AT EXPOSURE, AND THE SHEEP GENOTYPE. THE SURVIVAL TIME IS
CC       MAINLY DETERMINED BY A SINGLE GENETIC LOCUS, SIP, WHICH HAS TWO
CC       ALLELES, SUSCEPTIBLE (SA) AND RESISTANT (PA). SHORT INCUBATION
CC       PERIOD IS CONFERRED BY THE PARTIALLY DOMINANT SA ALLELE. SCRAPIE
CC       CAN BE SPREAD BETWEEN FLOCKMATES, OR IT CAN BE TRANSMITTED FROM AN
CC       INFECTED EWE TO ITS LAMB.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; M31313; AAB97765.1; -.
DR   EMBL; D38179; BAA07376.1; -.
DR   EMBL; X79912; CAA56283.1; -.
DR   PIR; A35983; A35983.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     24
FT   CHAIN        25    256       MAJOR PRION PROTEIN.
FT   CARBOHYD    184    184       N-LINKED (GLCNAC. . .) (PROBABLE).
FT   CARBOHYD    200    200       N-LINKED (GLCNAC. . .) (PROBABLE).
FT   DISULFID    182    217       BY SIMILARITY.
FT   DOMAIN       54     95       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
FT   VARIANT     112    112       M -> T.
FT   VARIANT     136    136       A -> V (IN SCRAPIE; SHORT INCUBATION; SIP
FT                                SA ALLELE).
FT   VARIANT     137    137       M -> T.
FT   VARIANT     141    141       L -> F.
FT   VARIANT     154    154       R -> H.
FT   VARIANT     171    171       R -> Q (LINKED TO SUSCEPTIBILITY TO
FT                                SCRAPIE).
FT   VARIANT     171    171       R -> H (IN SCRAPIE; LOW INCIDENCE).
FT   VARIANT     211    211       R -> Q.
SQ   SEQUENCE   256 AA;  27916 MW;  7FFBEA6C6FDBF8BB CRC64;


  Query Match          100.0%;  Score 72;  DB 1;  Length 256;
  Best Local Similarity  100.0%;  Pred. No. 2e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||||||||||
Db     217 CITQYQRESQAYY 229


RESULT   4
PRP2_BOVIN
ID   PRP2_BOVIN     STANDARD;      PRT;   256 AA.
AC   Q01880;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   01-NOV-1997 (Rel. 35, Last annotation update)
DE   MAJOR PRION PROTEIN 2 PRECURSOR (PRP) (MAJOR SCRAPIE-ASSOCIATED FIBRIL
DE   PROTEIN 2).
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=93118243; PubMed=1362024;
RA   Yoshimoto J., Iinuma T., Ishiguro N., Horiuchi M., Imamura M.,
RA   Shinagawa M.;
RT   "Comparative sequence analysis and expression of bovine PrP gene in
RT   mouse L-929 cells.";
RL   Virus Genes 6:343-356(1992).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC       INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KURU,
```

```
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC   -   TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; D10614; BAA01469.1; -.
DR   PIR; JU0268; JU0268.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL       1    24
FT   CHAIN       25   256       MAJOR PRION PROTEIN 2.
FT   CARBOHYD   184   184       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   200   200       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DISULFID   182   217       BY SIMILARITY.
FT   DOMAIN      54    95       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                              Q.
FT   REPEAT      54    62       1.
FT   REPEAT      63    70       2.
FT   REPEAT      71    78       3.
FT   REPEAT      79    86       4.
FT   REPEAT      87    95       5.
SQ   SEQUENCE   256 AA;  27880 MW;  0D969FF2D9033B30 CRC64;


  Query Match             100.0%;  Score 72;  DB 1;  Length 256;
  Best Local Similarity   100.0%;  Pred. No. 2e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||||||||||
Db     217 CITQYQRESQAYY 229


RESULT   5
PRIO_BOVIN
ID   PRIO_BOVIN     STANDARD;      PRT;   264 AA.
AC   P10279;
DT   01-MAR-1989 (Rel. 10, Created)
DT   01-NOV-1991 (Rel. 20, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   MAJOR PRION PROTEIN 1 PRECURSOR (PRP) (MAJOR SCRAPIE-ASSOCIATED FIBRIL
DE   PROTEIN 1).
GN   PRNP.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=HOLSTEIN-FRIESIAN;
RX   MEDLINE=91116314; PubMed=1671225;
RA   Goldmann W., Hunter N., Martin T., Dawson M., Hope J.;
RT   "Different forms of the bovine PrP gene have five or six copies of a
RT   short, G-C-rich element within the protein-coding exon.";
RL   J. Gen. Virol. 72:201-204(1991).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=93118243; PubMed=1362024;
RA   Yoshimoto J., Iinuma T., Ishiguro N., Horiuchi M., Imamura M.,
RA   Shinagawa M.;
RT   "Comparative sequence analysis and expression of bovine PrP gene in
RT   mouse L-929 cells.";
RL   Virus Genes 6:343-356(1992).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=93179783; PubMed=8440932;
RA   Prusiner S.B., Fuzi M., Scott M., Serban D., Serban H.,
RA   Taraboulos A., Gabriel J.M., Wells G.A., Wilesmith J.W., Bradley R.;
RT   "Immunologic and molecular biologic studies of prion proteins in
RT   bovine spongiform encephalopathy.";
RL   J. Infect. Dis. 167:602-613(1993).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=HOLSTEIN-FRIESIAN; TISSUE=Brain;
RA   Horiuchi M.;
RL   Submitted (FEB-1997) to the EMBL/GenBank/DDBJ databases.
RN   [5]
RP   SEQUENCE OF 1-15 FROM N.A.
RA   Tanaka M., Inoue S., Ikeda T., Horiuchi M., Ishiguro N., Shinagawa M.;
RL   Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.
RN   [6]
RP   SEQUENCE OF 25-36.
RX   MEDLINE=89057122; PubMed=2904126;
RA   Hope J., Reekie L.J.D., Hunter N., Multhaup G., Beyreuther K.,
RA   White H., Scott A.C., Stack M.J., Dawson M., Wells G.A.;
RT   "Fibrils from brains of cows with new cattle disease contain scrapie-
RT   associated protein.";
RL   Nature 336:390-392(1988).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND ANIMALS
CC       INFECTED WITH DEGENERATIVE NEUROLOGICAL DISEASES SUCH AS KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X55882; CAA39368.1; -.
DR   EMBL; D10612; BAA01467.1; -.
DR   EMBL; D10613; BAA01468.1; -.
DR   EMBL; S55629; AAB25514.1; -.
DR   EMBL; AB001468; BAA19253.1; -.
DR   EMBL; D26151; BAA05138.1; -.
DR   PIR; S07347; S07347.
DR   PIR; JT0953; JT0953.
DR   PIR; A54330; A54330.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL       1    24
FT   CHAIN       25   264       MAJOR PRION PROTEIN 1.
FT   CARBOHYD   192   192       N-LINKED (GLCNAC. . .) (PROBABLE).
FT   CARBOHYD   208   208       N-LINKED (GLCNAC. . .) (PROBABLE).
FT   DISULFID   190   225       BY SIMILARITY.
FT   DOMAIN      54   103       6 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                              Q.
```

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FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     94       5.
FT   REPEAT       95    103       6.
FT   VARIANT      71     78       MISSING (IN A SECOND ALLELE).
FT   CONFLICT    218    218       E -> K (IN REF. 2 AND 4).
SQ   SEQUENCE   264 AA;  28614 MW;  D6D214038316A231 CRC64;


  Query Match             100.0%;  Score 72;  DB 1;  Length 264;
  Best Local Similarity   100.0%;  Pred. No. 2.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||||||||||
Db     225 CITQYQRESQAYY 237


RESULT   6
PRIO_ATEGE
ID   PRIO_ATEGE     STANDARD;      PRT;   232 AA.
AC   P40246;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Ateles geoffroyi (Black-handed spider monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Atelinae; Ateles.
OX   NCBI_TaxID=9509;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U08309; AAC50097.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN        16    214       MAJOR PRION PROTEIN.
FT   PROPEP      215   >232       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       214    214       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    163    198       BY SIMILARITY.
FT   CARBOHYD    165    165       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       44     84       4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       44     51       1.
FT   REPEAT       52     59       2.
FT   REPEAT       60     67       3.
FT   REPEAT       68     75       4.
FT   NON_TER     232    232
SQ   SEQUENCE   232 AA;  25596 MW;  0E2D75F04C05CC4A CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 232;
  Best Local Similarity   92.3%;  Pred. No. 6.7e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||:|||||||
Db     198 CITQYERESQAYY 210


RESULT   7
PRIO_THEGE
ID   PRIO_THEGE     STANDARD;      PRT;   238 AA.
AC   Q95270;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   01-NOV-1997 (Rel. 35, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP OR PRP.
OS   Theropithecus gelada (Gelada baboon).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Theropithecus.
OX   NCBI_TaxID=9565;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   der Kuyl A.C., Dekker J.T., Goudsmit J.;
RL   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U75383; AAB50630.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN        16   >238       MAJOR PRION PROTEIN.
FT   DISULFID    164    199       BY SIMILARITY.
FT   CARBOHYD    166    166       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    182    182       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       44     83       4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
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FT   REPEAT       44     52       1.
FT   REPEAT       53     60       2.
FT   REPEAT       61     68       3.
FT   REPEAT       69     76       4.
FT   NON_TER     238    238
SQ   SEQUENCE   238 AA;  26104 MW;  5F59BFF602243EDB CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 238;
  Best Local Similarity   92.3%;  Pred. No. 6.9e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           ||||||:||||||
Db     199 CITQYQKESQAYY 211


RESULT   8
PRIO_ATEPA
ID   PRIO_ATEPA     STANDARD;      PRT;   252 AA.
AC   P51446;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Ateles paniscus (Black spider monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Atelinae; Ateles.
OX   NCBI_TaxID=9510;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=95083661; PubMed=7991600;
RA   Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
RA   Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT   "Infectious amyloid precursor gene sequences in primates used for
RT   experimental transmission of human spongiform encephalopathy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U15164; AAA68634.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    229       MAJOR PRION PROTEIN.
FT   PROPEP      230    252       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       229    229       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    178    213       BY SIMILARITY.
FT   CARBOHYD    180    180       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    196    196       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     90       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     58       1.
FT   REPEAT       59     66       2.
FT   REPEAT       67     74       3.
FT   REPEAT       75     82       4.
FT   REPEAT       83     90       5.
SQ   SEQUENCE   252 AA;  27718 MW;  20EA38A42DCC56D1 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 252;
  Best Local Similarity   92.3%;  Pred. No. 7.3e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||:|||||||
Db     213 CITQYERESQAYY 225


RESULT   9
PRIO_CEBAP
ID   PRIO_CEBAP     STANDARD;      PRT;   252 AA.
AC   P40249;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Cebus apella (Brown-capped capuchin).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Cebus.
OX   NCBI_TaxID=9515;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U08295; AAC50084.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    229       MAJOR PRION PROTEIN.
FT   PROPEP      230    252       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       229    229       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    178    213       BY SIMILARITY.
FT   CARBOHYD    180    180       N-LINKED (GLCNAC. . .) (POTENTIAL).
```

```
FT   CARBOHYD    196    196       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     90       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     58       1.
FT   REPEAT       59     66       2.
FT   REPEAT       67     74       3.
FT   REPEAT       75     82       4.
FT   REPEAT       83     90       5.
SQ   SEQUENCE   252 AA;  27579 MW;  A2DFCA0AD26D7821 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 252;
  Best Local Similarity   92.3%;  Pred. No. 7.3e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||:|||||||
Db    213 CITQYERESQAYY 225


RESULT  10
PRIO_GORGO
ID   PRIO_GORGO     STANDARD;      PRT;   253 AA.
AC   P40252; Q28419;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Gorilla gorilla gorilla (Lowland gorilla).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
OX   NCBI_TaxID=9595;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Blood;
RX   MEDLINE=95083661; PubMed=7991600;
RA   Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
RA   Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT   "Infectious amyloid precursor gene sequences in primates used for
RT   experimental transmission of human spongiform encephalopathy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U08300; AAC50089.1; -.
DR   EMBL; U15166; AAA68633.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    230       MAJOR PRION PROTEIN.
FT   PROPEP      231    253       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       230    230       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    179    214       BY SIMILARITY.
FT   CARBOHYD    181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     91       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     59       1.
FT   REPEAT       60     67       2.
FT   REPEAT       68     75       3.
FT   REPEAT       76     83       4.
FT   REPEAT       84     91       5.
FT   CONFLICT      6      6       C -> Y (IN REF. 2).
SQ   SEQUENCE   253 AA;  27660 MW;  E28F4C3FAABCA49E CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 253;
  Best Local Similarity   92.3%;  Pred. No. 7.4e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||:|||||||
Db    214 CITQYERESQAYY 226


RESULT  11
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ID   PRIO_HUMAN     STANDARD;      PRT;   253 AA.
AC   P04156;
DT   01-NOV-1986 (Rel. 03, Created)
DT   01-NOV-1986 (Rel. 03, Last sequence update)
DT   01-OCT-2000 (Rel. 40, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (ASCR).
GN   PRNP.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=86300093; PubMed=3755672;
RA   Kretzschmar H.A., Stowring L.E., Westaway D., Stubblebine W.H.,
RA   Prusiner S.B., Dearmond S.J.;
RT   "Molecular cloning of a human prion protein cDNA.";
RL   DNA 5:315-324(1986).
RN   [2]
RP   SEQUENCE OF 8-253 FROM N.A.
RX   MEDLINE=86261778; PubMed=3014653;
RA   Liao Y.-C.J., Lebo R.V., Clawson G.A., Smuckler E.A.;
RT   "Human prion protein cDNA: molecular cloning, chromosomal mapping,
RT   and biological implications.";
RL   Science 233:364-367(1986).
RN   [3]
RP   SEQUENCE OF 58-85 AND 111-150 (VARIANT AMYLOID GSS).
RX   MEDLINE=91160504; PubMed=1672107;
RA   Tagliavini F., Prelli F., Ghiso J., Bugiani O., Serban D.,
RA   Prusiner S.B., Farlow M.R., Ghetti B., Frangione B.;
RT   "Amyloid protein of Gerstmann-Straussler-Scheinker disease (Indiana
RT   kindred) is an 11 kd fragment of prion protein with an N-terminal
RT   glycine at codon 58.";
RL   EMBO J. 10:513-519(1991).
RN   [4]
RP   REVIEW ON VARIANTS.
RX   MEDLINE=93372867; PubMed=8364585;
RA   Palmer M.S., Collinge J.;
RT   "Mutations and polymorphisms in the prion protein gene.";
RL   Hum. Mutat. 2:168-173(1993).
```

RN [5]
RP REVIEW ON VARIANTS.
RX MEDLINE=94029646; PubMed=8105771;
RA Prusiner S.B.;
RT "Genetic and infectious prion diseases.";
RL Arch. Neurol. 50:1129-1153(1993).
RN [6]
RP VARIANT GSS LEU-102.
RX MEDLINE=89159432; PubMed=2564168;
RA Hsiao K., Baker H.F., Crow T.J., Poulter M., Owen F.,
RA Terwilliger J.D., Westaway D., Ott J., Pursiner S.B.;
RT "Linkage of a prion protein missense variant to Gerstmann-Straussler
RT syndrome.";
RL Nature 338:342-345(1989).
RN [7]
RP VARIANTS LEU-102; VAL-117 AND VAL-129.
RX MEDLINE=89392018; PubMed=2783132;
RA Doh-Ura K., Tateishi J., Sasaki H., Kitamoto T., Sakaki Y.;
RT "Pro-->Leu change at position 102 of prion protein is the most
RT common but not the sole mutation related to Gerstmann-Straussler
RT syndrome.";
RL Biochem. Biophys. Res. Commun. 163:974-979(1989).
RN [8]
RP VARIANT FFI ASN-178.
RX MEDLINE=92195483; PubMed=1347910;
RA Medori R., Montagna P., Tritschler H.J., Leblanc A., Cortelli P.,
RA Tinuper P., Lugaresi E., Gambetti P.;
RT "Fatal familial insomnia: a second kindred with mutation of prion
RT protein gene at codon 178.";
RL Neurology 42:669-670(1992).
RN [9]
RP VARIANT CJD ASN-178.
RX MEDLINE=91124933; PubMed=1671440;
RA Goldfarb L.G., Haltia M., Brown P., Nieto A., Kovanen J.,
RA McCombie W.R., Trapp S., Gajdusek D.C.;
RT "New mutation in scrapie amyloid precursor gene (at codon 178) in
RT Finnish Creutzfeldt-Jakob kindred.";
RL Lancet 337:425-425(1991).
RN [10]
RP VARIANT CJD LYS-200.
RX MEDLINE=90355709; PubMed=1975028;
RA Goldfarb L., Mitrova E., Brown P., Toh B.K., Gajdusek D.C.;
RT "Mutation in codon 200 of scrapie amyloid protein gene in two clusters
RT of Creutzfeldt-Jakob disease in Slovakia.";
RL Lancet 336:514-515(1990).
RN [11]
RP VARIANT GSS ARG-217.
RX MEDLINE=93250977; PubMed=1363810;
RA Hsiao K., Dlouhy S.R., Farlow M.R., Cass C., da Costa M.,
RA Conneally P.M., Hodes M.E., Ghetti B., Prusiner S.B.;
RT "Mutant prion proteins in Gerstmann-Straussler-Scheinker disease with
RT neurofibrillary tangles.";
RL Nat. Genet. 1:68-71(1992).
RN [12]
RP VARIANTS CJD ILE-180 AND ARG-232.
RX MEDLINE=93213314; PubMed=8461023;
RA Kitamoto T., Ohta M., Doh-Ura K., Hitoshi S., Terao Y., Tateishi J.;
RT "Novel missense variants of prion protein in Creutzfeldt-Jakob
RT disease or Gerstmann-Straussler syndrome.";
RL Biochem. Biophys. Res. Commun. 191:709-714(1993).
RN [13]
RP VARIANT CJD ILE-210.
RX MEDLINE=94071412; PubMed=7902693;
RA Pocchiari M., Salvatore M., Cutruzzola F., Genuardi M.,
RA Allcatelli C.T., Masullo C., Macchi G., Alema G., Galgani S., Xi Y.G.,
RA Petraroli R., Silvestrini M.C., Brunori M.;
RT "A new point mutation of the prion protein gene in Creutzfeldt-Jakob
RT disease.";
RL Ann. Neurol. 34:802-807(1993).
RN [14]
RP VARIANT GSS LEU-105.
RX MEDLINE=94077414; PubMed=7902972;
RA Yamada M., Itoh Y., Fujigasaki H., Naruse S., Kaneko K., Kitamoto T.,
RA Tateishi J., Otomo E., Hayakawa M., Tanaka J., Matsushita M.,
RA Miyatake T.;
RT "A missense mutation at codon 105 with codon 129 polymorphism of the
RT prion protein gene in a new variant of Gerstmann-Straussler-Scheinker
RT disease.";
RL Neurology 43:2723-2724(1993).
RN [15]
RP VARIANT GSS LEU-105.
RX MEDLINE=95213742; PubMed=7699395;
RA Itoh Y., Yamada M., Hayakawa M., Shozawa T., Tanaka J., Matsushita M.,
RA Kitamoto T., Tateishi J., Otomo E.;
RT "A variant of Gerstmann-Straussler-Scheinker disease carrying codon
RT 105 mutation with codon 129 polymorphism of the prion protein gene: a
RT clinicopathological study.";
RL J. Neurol. Sci. 127:77-86(1994).
RN [16]
RP VARIANT CJD LYS-200.
RX MEDLINE=94142912; PubMed=7906019;
RA Inoue I., Kitamoto T., Doh-Ura K., Shii H., Goto I., Tateishi J.;
RT "Japanese family with Creutzfeldt-Jakob disease with codon 200 point
RT mutation of the prion protein gene.";
RL Neurology 44:299-301(1994).
RN [17]
RP VARIANT CJD LYS-200.
RX MEDLINE=94316708; PubMed=7913755;
RA Gabizon R., Rosenman H., Meiner Z., Kahana I., Kahana E., Shugart Y.,
RA Ott J., Prusiner S.B.;
RT "Mutation in codon 200 and polymorphism in codon 129 of the prion
RT protein gene in Libyan Jews with Creutzfeldt-Jakob disease.";
RL Philos. Trans. R. Soc. Lond., B, Biol. Sci. 343:385-390(1994).
RN [18]
RP VARIANT GSS LEU-102.
RX MEDLINE=95303274; PubMed=7783876;
RA Young K., Jones C.K., Piccardo P., Lazzarini A., Golbe L.I.,
RA Zimmerman T.R., Dickson D.W., McLachlan D.C., St George-Hyslop P.H.,
RA Lennox A.;
RT "Gerstmann-Straussler-Scheinker disease with mutation at codon 102
RT and methionine at codon 129 of PRNP in previously unreported
RT patients.";
RL Neurology 45:1127-1134(1995).
RN [19]
RP VARIANT GSS LEU-102, AND VARIANT LYS-219.
RX MEDLINE=96390486; PubMed=8797472;
RA Barbanti P., Fabbrini G., Salvatore M., Petraroli R., Cardone F.,
RA Maras B., Equestre M., Macchi G., Lenzi G.L., Pocchiari M.;
RT "Polymorphism at codon 129 or codon 219 of PRNP and clinical
RT heterogeneity in a previously unreported family with Gerstmann-
RT Straussler-Scheinker disease (PrP-P102L mutation).";
RL Neurology 47:734-741(1996).
RN [20]
RP VARIANT CJD HIS-208.
RX MEDLINE=97065966; PubMed=8909447;
RA Mastrianni J.A., Iannicola C., Myers R.M., Dearmond S., Prusiner S.B.;
RT "Mutation of the prion protein gene at codon 208 in familial
RT Creutzfeldt-Jakob disease.";
RL Neurology 47:1305-1312(1996).
RN [21]
RP VARIANT CJD HIS-208.
RX MEDLINE=97410007; PubMed=9266722;
RA Nitrini R., Rosemberg S., Passos-Bueno M.R., da Silva L.S.,
RA Iughetti P., Papadopoulos M., Carrilho P.M., Caramelli P.,
RA Albrecht S., Zatz M., Leblanc A.;
RT "Familial spongiform encephalopathy associated with a novel prion
RT protein gene mutation.";
RL Ann. Neurol. 42:138-146(1997).
RN [22]
RP VARIANT SCHIZOAFFECTIVE DISORDER SER-171.
RX MEDLINE=98044028; PubMed=9384372;
RA Samaia H.B., Mari J.J., Vallada H.P., Moura R.P., Simpson A.J.G.,
RA Brentani R.R.;
RT "A prion-linked psychiatric disorder.";
RL Nature 390:241-241(1997).
RN [23]

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RP   VARIANTS GSS ASN-202 AND PRO-212.
RX   MEDLINE=99000187; PubMed=9786248;
RA   Piccardo P., Dlouhy S.R., Lievens P.M., Young K., Bird T.D.,
RA   Nochlin D., Dickson D.W., Vinters H.V., Zimmerman T.R.,
RA   Mackenzie I.R., Kish S.J., Ang L.C., De Carli C., Pocchiari M.,
RA   Brown P., Gibbs C.J. Jr., Gajdusek D.C., Bugiani O., Ironside J.,
RA   Tagliavini F., Ghetti B.;
RT   "Phenotypic variability of Gerstmann-Straussler-Scheinker disease is
RT   associated with prion protein heterogeneity.";
RL   J. Neuropathol. Exp. Neurol. 57:979-988(1998).
RN   [24]
RP   VARIANT GSS ARG-187.
RX   MEDLINE=20049886; PubMed=10581485;
RA   Cervenakova L., Buetefisch C., Lee H.S., Taller I., Stone G.,
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  Query Match             95.8%;  Score 69;  DB 1;  Length 253;
  Best Local Similarity   92.3%;  Pred. No. 7.4e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
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Db     214 CITQYERESQAYY 226
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RESULT  12
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ID   PRIO_PANTR     STANDARD;      PRT;   253 AA.
AC   P40253;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Pan troglodytes (Chimpanzee), Hylobates lar (Common gibbon), and
OS   Hylobates syndactylus (Siamang) (Symphalangus syndactylus).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
OX   NCBI_TaxID=9598, 9580, 9590;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   SPECIES=P.troglodytes; TISSUE=Brain;
RX   MEDLINE=95083661; PubMed=7991600;
RA   Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
RA   Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT   "Infectious amyloid precursor gene sequences in primates used for
RT   experimental transmission of human spongiform encephalopathy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
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DR   EMBL; U08296; AAC50085.1; -.
DR   EMBL; U08299; AAC50088.1; -.
DR   EMBL; U08308; AAC50096.1; -.
DR   EMBL; U15039; AAA68632.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL       1     22       BY SIMILARITY.
FT   CHAIN       23    230       MAJOR PRION PROTEIN.
FT   PROPEP     231    253       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID      230    230       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID   179    214       BY SIMILARITY.
FT   CARBOHYD   181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN      51     91       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                               Q.
FT   REPEAT      51     59       1.
FT   REPEAT      60     67       2.
FT   REPEAT      68     75       3.
FT   REPEAT      76     83       4.
FT   REPEAT      84     91       5.
SQ   SEQUENCE   253 AA;  27633 MW;  CF8F59F040996B74 CRC64;
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  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
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Db     214 CITQYERESQAYY 226
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RESULT  13
PRIO_PONPY
ID   PRIO_PONPY     STANDARD;      PRT;   253 AA.
AC   P40256;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Pongo pygmaeus (Orangutan).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.
OX   NCBI_TaxID=9600;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   -!----------------------------------------------------------------------
DR   EMBL; U08305; AAC50093.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    230       MAJOR PRION PROTEIN.
FT   PROPEP      231    253       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       230    230       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    179    214       BY SIMILARITY.
FT   CARBOHYD    181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     91       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     59       1.
FT   REPEAT       60     67       2.
FT   REPEAT       68     75       3.
FT   REPEAT       76     83       4.
FT   REPEAT       84     91       5.
SQ   SEQUENCE   253 AA;  27680 MW;  A8D0E6972F1D5B26 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 253;
  Best Local Similarity   92.3%;  Pred. No. 7.4e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           ||||||:|||||||
Db     214 CITQYERESQAYY 226


RESULT  14
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ID   PRIO_CANFA     STANDARD;      PRT;   255 AA.
AC   O46501;
DT   15-JUL-1999 (Rel. 38, Created)
DT   15-JUL-1999 (Rel. 38, Last sequence update)
DT   15-JUL-1999 (Rel. 38, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP).
GN   PRNP OR PRP.
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Rohwer R.G., Edelman D.;
RL   Submitted (SEP-1997) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; AF022714; AAB94585.1; -.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     24       BY SIMILARITY.
FT   CHAIN        25    255       MAJOR PRION PROTEIN.
FT   DOMAIN       54     94       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     94       5.
FT   CARBOHYD    174    174       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    184    184       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    199    199       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DISULFID    182    216       BY SIMILARITY.
SQ   SEQUENCE   255 AA;  27704 MW;  70E80411BD6B1F63 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 255;
  Best Local Similarity   92.3%;  Pred. No. 7.4e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           ||||||:|||||||
Db     216 CITQYQRESEAYY 228


RESULT  15
PRIO_CEREL
ID   PRIO_CEREL     STANDARD;      PRT;   256 AA.
AC   P79142; O62669;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP).
GN   PRNP OR PRP.
OS   Cervus elaphus (Red deer), and
OS   Cervus elaphus nelsoni (American elk).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Cervoidea;
OC   Cervidae; Cervinae; Cervus.
OX   NCBI_TaxID=9860, 9864;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   SPECIES=C.elaphus; TISSUE=Blood;
RX   MEDLINE=98019099; PubMed=9358067;
RA   Kaluz S., Kaluzova M., Flint A.P.F.;
RT   "Sequencing analysis of prion genes from red deer and camel.";
RL   Gene 199:283-286(1997).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   SPECIES=C.e.nelsoni; TISSUE=Brain;
RX   MEDLINE=98281723; PubMed=9620413;
RA   O'Rourke K.I., Baszler T.V., Miller J.M., Spraker T.R.,
RA   Sadler-Riggleman I., Knowles D.P.;
RT   "Monoclonal antibody F89/160.1.5 defines a conserved epitope on the
RT   ruminant prion protein.";
RL   J. Clin. Microbiol. 36:1750-1755(1998).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
```

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CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; Y09761; CAA70902.1; -.
DR   EMBL; AF016227; AAC12860.2; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     24       BY SIMILARITY.
FT   CHAIN        25    256       MAJOR PRION PROTEIN.
FT   CARBOHYD    184    184       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    200    200       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DISULFID    182    217       BY SIMILARITY.
FT   DOMAIN       54     95       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       54     62       1.
FT   REPEAT       63     70       2.
FT   REPEAT       71     78       3.
FT   REPEAT       79     86       4.
FT   REPEAT       87     95       5.
SQ   SEQUENCE   256 AA;  27935 MW;  E54EB121DE02E1E5 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 256;
  Best Local Similarity   92.3%;  Pred. No. 7.5e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           ||||||||||:|||
Db     217 CITQYQRESEAYY 229


Search completed: October 25, 2001, 08:56:08
Job time: 271 sec
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GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:51:37 ; Search time 12.68 Seconds
(without alignments)
35.120 Million cell updates/sec

Title: US-09-576-724-1
Perfect score: 72
Sequence: 1 CITQYERESQAYY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 93435 seqs, 34255486 residues

Total number of hits satisfying chosen parameters: 93435

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_39:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	72	100.0	232	1	PRIO_ATEGE	P40246 ateles geof
2	72	100.0	252	1	PRIO_ATEPA	P51446 ateles pani
3	72	100.0	252	1	PRIO_CEBAP	P40249 cebus apell
4	72	100.0	253	1	PRIO_GORGO	P40252 gorilla gor
5	72	100.0	253	1	PRIO_HUMAN	P04156 homo sapien
6	72	100.0	253	1	PRIO_PANTR	P40253 pan troglod
7	72	100.0	253	1	PRIO_PONPY	P40256 pongo pygma
8	69	95.8	238	1	PRIO_CERAT	Q95145 cercocebus
9	69	95.8	239	1	PRIO_AOTTR	P40245 aotus trivi
10	69	95.8	241	1	PRIO_CALMO	P40248 callicebus
11	69	95.8	241	1	PRIO_MANSP	P40255 mandrillus
12	69	95.8	245	1	PRIO_CERAE	P40250 cercopithec
13	69	95.8	246	1	PRIO_CERMO	Q95172 cercopithec
14	69	95.8	246	1	PRIO_CERPA	Q95174 cercopithec
15	69	95.8	246	1	PRIO_CERTO	Q95176 cercocebus
16	69	95.8	252	1	PRIO_CALJA	P40247 callithrix
17	69	95.8	253	1	PRIO_COLGU	P40251 colobus gue
18	69	95.8	253	1	PRIO_MACFA	P40254 macaca fasc
19	69	95.8	253	1	PRIO_PREFR	P40257 presbytis f
20	69	95.8	256	1	PRIO_CAPHI	P52113 capra hircu
21	69	95.8	256	1	PRIO_ODOHE	P47852 odocoileus
22	69	95.8	256	1	PRIO_SHEEP	P23907 ovis aries
23	69	95.8	256	1	PRP2_BOVIN	Q01880 bos taurus
24	69	95.8	260	1	PRIO_SAISC	P40258 saimiri sci
25	69	95.8	264	1	PRIO_BOVIN	P10279 bos taurus
26	66	91.7	238	1	PRIO_THEGE	Q95270 theropithec
27	66	91.7	255	1	PRIO_CANFA	O46501 canis famil
28	66	91.7	256	1	PRIO_CEREL	P79142 cervus elap
29	66	91.7	256	1	PRP2_TRAST	P40243 tragelaphus
30	66	91.7	264	1	PRP1_TRAST	P40242 tragelaphus
31	65	90.3	254	1	PRIO_CRIGR	Q60506 cricetulus
32	65	90.3	254	1	PRIO_CRIMI	Q60468 cricetulus
33	65	90.3	254	1	PRIO_MOUSE	P04925 mus musculu
34	65	90.3	254	1	PRIO_RAT	P13852 rattus norv
35	65	90.3	257	1	PRIO_MUSVI	P40244 mustela vi
36	62	86.1	256	1	PRIO_FELCA	O18754 felis silve
37	61	84.7	254	1	PRIO_MESAU	P04273 mesocricetu
38	61	84.7	257	1	PRIO_MUSPF	P52114 mustela put
39	56	77.8	252	1	PRIO_RABIT	Q95211 oryctolagus
40	54	75.0	255	1	PRIO_CAMDR	P79141 camelus dro
41	50	69.4	257	1	PRIO_PIG	P49927 sus scrofa
42	42	58.3	1030	1	SPAB_BACSU	P39774 bacillus su
43	40	55.6	259	1	PRIO_TRIVU	P51780 trichosurus
44	38	52.8	302	1	SYGA_HAEIN	P43821 haemophilus
45	38	52.8	303	1	SYGA_ECOLI	P00960 escherichia

ALIGNMENTS

RESULT 1
PRIO_ATEGE
ID PRIO_ATEGE STANDARD; PRT; 232 AA.
AC P40246;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 01-OCT-1996 (Rel. 34, Last annotation update)
DE MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN PRNP.
OS Ateles geoffroyi (Black-handed spider monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Atelinae; Ateles.
OX NCBI_TaxID=9509;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC "RODS".
CC -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC ---

CC ---
DR EMBL; U08309; AAC50097.1; -.
DR HSSP; P04925; 1AG2.
DR InterPro; IPR000817; -.
DR Pfam; PF00377; prion; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.

FT	NON_TER	1	1
FT	SIGNAL	<1	15 BY SIMILARITY.
FT	CHAIN	16	214 MAJOR PRION PROTEIN.
FT	PROPEP	215	>232 REMOVED IN MATURE FORM (BY SIMILARITY).
FT	LIPID	214	214 GPI-ANCHOR (BY SIMILARITY).
FT	DISULFID	163	198 BY SIMILARITY.
FT	CARBOHYD	165	165 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	181	181 N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	DOMAIN	44	84 4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-Q.

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FT   REPEAT       44     51       1.
FT   REPEAT       52     59       2.
FT   REPEAT       60     67       3.
FT   REPEAT       68     75       4.
FT   NON_TER     232    232
SQ   SEQUENCE   232 AA;  25596 MW;  0E2D75F04C05CC4A CRC64;

  Query Match           100.0%;  Score 72;  DB 1;  Length 232;
  Best Local Similarity  100.0%;  Pred. No. 1.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    198 CITQYERESQAYY 210


RESULT   2
PRIO_ATEPA
ID   PRIO_ATEPA     STANDARD;      PRT;   252 AA.
AC   P51446;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Ateles paniscus (Black spider monkey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Atelinae; Ateles.
OX   NCBI_TaxID=9510;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Brain;
RX   MEDLINE=95083661; PubMed=7991600;
RA   Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
RA   Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT   "Infectious amyloid precursor gene sequences in primates used for
RT   experimental transmission of human spongiform encephalopathy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U15164; AAA68634.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    229       MAJOR PRION PROTEIN.
FT   PROPEP      230    252       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       229    229       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    178    213       BY SIMILARITY.
FT   CARBOHYD    180    180       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    196    196       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     90       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     58       1.
FT   REPEAT       59     66       2.
FT   REPEAT       67     74       3.
FT   REPEAT       75     82       4.
FT   REPEAT       83     90       5.
SQ   SEQUENCE   252 AA;  27718 MW;  20EA38A42DCC56D1 CRC64;

  Query Match           100.0%;  Score 72;  DB 1;  Length 252;
  Best Local Similarity  100.0%;  Pred. No. 1.9e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    213 CITQYERESQAYY 225


RESULT   3
PRIO_CEBAP
ID   PRIO_CEBAP     STANDARD;      PRT;   252 AA.
AC   P40249;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Cebus apella (Brown-capped capuchin).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Cebinae; Cebus.
OX   NCBI_TaxID=9515;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U08295; AAC50084.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    229       MAJOR PRION PROTEIN.
FT   PROPEP      230    252       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       229    229       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    178    213       BY SIMILARITY.
FT   CARBOHYD    180    180       N-LINKED (GLCNAC. . .) (POTENTIAL).
```

```
FT   CARBOHYD    196    196       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     90       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     58       1.
FT   REPEAT       59     66       2.
FT   REPEAT       67     74       3.
FT   REPEAT       75     82       4.
FT   REPEAT       83     90       5.
SQ   SEQUENCE   252 AA;  27579 MW;  A2DFCA0AD26D7821 CRC64;


  Query Match             100.0%;  Score 72;  DB 1;  Length 252;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     213 CITQYERESQAYY 225


RESULT   4
PRIO_GORGO
ID   PRIO_GORGO     STANDARD;      PRT;   253 AA.
AC   P40252; Q28419;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Gorilla gorilla gorilla (Lowland gorilla).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Gorilla.
OX   NCBI_TaxID=9595;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Blood;
RX   MEDLINE=95083661; PubMed=7991600;
RA   Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
RA   Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT   "Infectious amyloid precursor gene sequences in primates used for
RT   experimental transmission of human spongiform encephalopathy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; U08300; AAC50089.1; -.
DR   EMBL; U15166; AAA68633.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    230       MAJOR PRION PROTEIN.
FT   PROPEP      231    253       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       230    230       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    179    214       BY SIMILARITY.
FT   CARBOHYD    181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     91       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     59       1.
FT   REPEAT       60     67       2.
FT   REPEAT       68     75       3.
FT   REPEAT       76     83       4.
FT   REPEAT       84     91       5.
FT   CONFLICT      6      6       C -> Y (IN REF. 2).
SQ   SEQUENCE   253 AA;  27660 MW;  E28F4C3FAABCA49E CRC64;


  Query Match             100.0%;  Score 72;  DB 1;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   5
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ID   PRIO_HUMAN     STANDARD;      PRT;   253 AA.
AC   P04156;
DT   01-NOV-1986 (Rel. 03, Created)
DT   01-NOV-1986 (Rel. 03, Last sequence update)
DT   01-OCT-2000 (Rel. 40, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (ASCR).
GN   PRNP.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=86300093; PubMed=3755672;
RA   Kretzschmar H.A., Stowring L.E., Westaway D., Stubblebine W.H.,
RA   Prusiner S.B., Dearmond S.J.;
RT   "Molecular cloning of a human prion protein cDNA.";
RL   DNA 5:315-324(1986).
RN   [2]
RP   SEQUENCE OF 8-253 FROM N.A.
RX   MEDLINE=86261778; PubMed=3014653;
RA   Liao Y.-C.J., Lebo R.V., Clawson G.A., Smuckler E.A.;
RT   "Human prion protein cDNA: molecular cloning, chromosomal mapping,
RT   and biological implications.";
RL   Science 233:364-367(1986).
RN   [3]
RP   SEQUENCE OF 58-85 AND 111-150 (VARIANT AMYLOID GSS).
RX   MEDLINE=91160504; PubMed=1672107;
RA   Tagliavini F., Prelli F., Ghiso J., Bugiani O., Serban D.,
RA   Prusiner S.B., Farlow M.R., Ghetti B., Frangione B.;
RT   "Amyloid protein of Gerstmann-Straussler-Scheinker disease (Indiana
RT   kindred) is an 11 kd fragment of prion protein with an N-terminal
RT   glycine at codon 58.";
RL   EMBO J. 10:513-519(1991).
RN   [4]
RP   REVIEW ON VARIANTS.
RX   MEDLINE=93372867; PubMed=8364585;
RA   Palmer M.S., Collinge J.;
RT   "Mutations and polymorphisms in the prion protein gene.";
RL   Hum. Mutat. 2:168-173(1993).
```

RN [5]
RP REVIEW ON VARIANTS.
RX MEDLINE=94029646; PubMed=8105771;
RA Prusiner S.B.;
RT "Genetic and infectious prion diseases.";
RL Arch. Neurol. 50:1129-1153(1993).
RN [6]
RP VARIANT GSS LEU-102.
RX MEDLINE=89159432; PubMed=2564168;
RA Hsiao K., Baker H.F., Crow T.J., Poulter M., Owen F.,
RA Terwilliger J.D., Westaway D., Ott J., Pursiner S.B.;
RT "Linkage of a prion protein missense variant to Gerstmann-Straussler
RT syndrome.";
RL Nature 338:342-345(1989).
RN [7]
RP VARIANTS LEU-102; VAL-117 AND VAL-129.
RX MEDLINE=89392018; PubMed=2783132;
RA Doh-Ura K., Tateishi J., Sasaki H., Kitamoto T., Sakaki Y.;
RT "Pro-->Leu change at position 102 of prion protein is the most
RT common but not the sole mutation related to Gerstmann-Straussler
RT syndrome.";
RL Biochem. Biophys. Res. Commun. 163:974-979(1989).
RN [8]
RP VARIANT FFI ASN-178.
RX MEDLINE=92195483; PubMed=1347910;
RA Medori R., Montagna P., Tritschler H.J., Leblanc A., Cortelli P.,
RA Tinuper P., Lugaresi E., Gambetti P.;
RT "Fatal familial insomnia: a second kindred with mutation of prion
RT protein gene at codon 178.";
RL Neurology 42:669-670(1992).
RN [9]
RP VARIANT CJD ASN-178.
RX MEDLINE=91124933; PubMed=1671440;
RA Goldfarb L.G., Haltia M., Brown P., Nieto A., Kovanen J.,
RA McCombie W.R., Trapp S., Gajdusek D.C.;
RT "New mutation in scrapie amyloid precursor gene (at codon 178) in
RT Finnish Creutzfeldt-Jakob kindred.";
RL Lancet 337:425-425(1991).
RN [10]
RP VARIANT CJD LYS-200.
RX MEDLINE=90355709; PubMed=1975028;
RA Goldfarb L., Mitrova E., Brown P., Toh B.K., Gajdusek D.C.;
RT "Mutation in codon 200 of scrapie amyloid protein gene in two clusters
RT of Creutzfeldt-Jakob disease in Slovakia.";
RL Lancet 336:514-515(1990).
RN [11]
RP VARIANT GSS ARG-217.
RX MEDLINE=93250977; PubMed=1363810;
RA Hsiao K., Dlouhy S.R., Farlow M.R., Cass C., da Costa M.,
RA Conneally P.M., Hodes M.E., Ghetti B., Prusiner S.B.;
RT "Mutant prion proteins in Gerstmann-Straussler-Scheinker disease with
RT neurofibrillary tangles.";
RL Nat. Genet. 1:68-71(1992).
RN [12]
RP VARIANTS CJD ILE-180 AND ARG-232.
RX MEDLINE=93213314; PubMed=8461023;
RA Kitamoto T., Ohta M., Doh-Ura K., Hitoshi S., Terao Y., Tateishi J.;
RT "Novel missense variants of prion protein in Creutzfeldt-Jakob
RT disease or Gerstmann-Straussler syndrome.";
RL Biochem. Biophys. Res. Commun. 191:709-714(1993).
RN [13]
RP VARIANT CJD ILE-210.
RX MEDLINE=94071412; PubMed=7902693;
RA Pocchiari M., Salvatore M., Cutruzzola F., Genuardi M.,
RA Allcatelli C.T., Masullo C., Macchi G., Alema G., Galgani S., Xi Y.G.,
RA Petraroli R., Silvestrini M.C., Brunori M.;
RT "A new point mutation of the prion protein gene in Creutzfeldt-Jakob
RT disease.";
RL Ann. Neurol. 34:802-807(1993).
RN [14]
RP VARIANT GSS LEU-105.
RX MEDLINE=94077414; PubMed=7902972;
RA Yamada M., Itoh Y., Fujigasaki H., Naruse S., Kaneko K., Kitamoto T.,
RA Tateishi J., Otomo E., Hayakawa M., Tanaka J., Matsushita M.,
RA Miyatake T.;
RT "A missense mutation at codon 105 with codon 129 polymorphism of the
RT prion protein gene in a new variant of Gerstmann-Straussler-Scheinker
RT disease.";
RL Neurology 43:2723-2724(1993).
RN [15]
RP VARIANT GSS LEU-105.
RX MEDLINE=95213742; PubMed=7699395;
RA Itoh Y., Yamada M., Hayakawa M., Shozawa T., Tanaka J., Matsushita M.,
RA Kitamoto T., Tateishi J., Otomo E.;
RT "A variant of Gerstmann-Straussler-Scheinker disease carrying codon
RT 105 mutation with codon 129 polymorphism of the prion protein gene: a
RT clinicopathological study.";
RL J. Neurol. Sci. 127:77-86(1994).
RN [16]
RP VARIANT CJD LYS-200.
RX MEDLINE=94142912; PubMed=7906019;
RA Inoue I., Kitamoto T., Doh-Ura K., Shii H., Goto I., Tateishi J.;
RT "Japanese family with Creutzfeldt-Jakob disease with codon 200 point
RT mutation of the prion protein gene.";
RL Neurology 44:299-301(1994).
RN [17]
RP VARIANT CJD LYS-200.
RX MEDLINE=94316708; PubMed=7913755;
RA Gabizon R., Rosenman H., Meiner Z., Kahana I., Kahana E., Shugart Y.,
RA Ott J., Prusiner S.B.;
RT "Mutation in codon 200 and polymorphism in codon 129 of the prion
RT protein gene in Libyan Jews with Creutzfeldt-Jakob disease.";
RL Philos. Trans. R. Soc. Lond., B, Biol. Sci. 343:385-390(1994).
RN [18]
RP VARIANT GSS LEU-102.
RX MEDLINE=95303274; PubMed=7783876;
RA Young K., Jones C.K., Piccardo P., Lazzarini A., Golbe L.I.,
RA Zimmerman T.R., Dickson D.W., McLachlan D.C., St George-Hyslop P.H.,
RA Lennox A.;
RT "Gerstmann-Straussler-Scheinker disease with mutation at codon 102
RT and methionine at codon 129 of PRNP in previously unreported
RT patients.";
RL Neurology 45:1127-1134(1995).
RN [19]
RP VARIANT GSS LEU-102, AND VARIANT LYS-219.
RX MEDLINE=96390486; PubMed=8797472;
RA Barbanti P., Fabbrini G., Salvatore M., Petraroli R., Cardone F.,
RA Maras B., Equestre M., Macchi G., Lenzi G.L., Pocchiari M.;
RT "Polymorphism at codon 129 or codon 219 of PRNP and clinical
RT heterogeneity in a previously unreported family with Gerstmann-
RT Straussler-Scheinker disease (PrP-P102L mutation).";
RL Neurology 47:734-741(1996).
RN [20]
RP VARIANT CJD HIS-208.
RX MEDLINE=97065966; PubMed=8909447;
RA Mastrianni J.A., Iannicola C., Myers R.M., Dearmond S., Prusiner S.B.;
RT "Mutation of the prion protein gene at codon 208 in familial
RT Creutzfeldt-Jakob disease.";
RL Neurology 47:1305-1312(1996).
RN [21]
RP VARIANT CJD HIS-208.
RX MEDLINE=97410007; PubMed=9266722;
RA Nitrini R., Rosemberg S., Passos-Bueno M.R., da Silva L.S.,
RA Iughetti P., Papadopoulos M., Carrilho P.M., Caramelli P.,
RA Albrecht S., Zatz M., Leblanc A.;
RT "Familial spongiform encephalopathy associated with a novel prion
RT protein gene mutation.";
RL Ann. Neurol. 42:138-146(1997).
RN [22]
RP VARIANT SCHIZOAFFECTIVE DISORDER SER-171.
RX MEDLINE=98044028; PubMed=9384372;
RA Samaia H.B., Mari J.J., Vallada H.P., Moura R.P., Simpson A.J.G.,
RA Brentani R.R.;
RT "A prion-linked psychiatric disorder.";
RL Nature 390:241-241(1997).
RN [23]

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RP   VARIANTS GSS ASN-202 AND PRO-212.
RX   MEDLINE=99000187; PubMed=9786248;
RA   Piccardo P., Dlouhy S.R., Lievens P.M., Young K., Bird T.D.,
RA   Nochlin D., Dickson D.W., Vinters H.V., Zimmerman T.R.,
RA   Mackenzie I.R., Kish S.J., Ang L.C., De Carli C., Pocchiari M.,
RA   Brown P., Gibbs C.J. Jr., Gajdusek D.C., Bugiani O., Ironside J.,
RA   Tagliavini F., Ghetti B.;
RT   "Phenotypic variability of Gerstmann-Straussler-Scheinker disease is
RT   associated with prion protein heterogeneity.";
RL   J. Neuropathol. Exp. Neurol. 57:979-988(1998).
RN   [24]
RP   VARIANT GSS ARG-187.
RX   MEDLINE=20049886; PubMed=10581485;
RA   Cervenakova L., Buetefisch C., Lee H.S., Taller I., Stone G.,
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  Query Match             100.0%;  Score 72;  DB 1;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.9e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
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Db    214 CITQYERESQAYY 226
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RESULT   6
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ID   PRIO_PANTR     STANDARD;      PRT;   253 AA.
AC   P40253;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Pan troglodytes (Chimpanzee), Hylobates lar (Common gibbon), and
OS   Hylobates syndactylus (Siamang) (Symphalangus syndactylus).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
OX   NCBI_TaxID=9598, 9580, 9590;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   SPECIES=P.troglodytes; TISSUE=Brain;
RX   MEDLINE=95083661; PubMed=7991600;
RA   Cervenakova L., Brown P., Goldfarb L.G., Nagle J., Pettrone K.,
RA   Rubenstein R., Dubnick M., Gibbs C.J., Gajdusek D.C.;
RT   "Infectious amyloid precursor gene sequences in primates used for
RT   experimental transmission of human spongiform encephalopathy.";
RL   Proc. Natl. Acad. Sci. U.S.A. 91:12159-12162(1994).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
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DR   EMBL; U08296; AAC50085.1; -.
DR   EMBL; U08299; AAC50088.1; -.
DR   EMBL; U08308; AAC50096.1; -.
DR   EMBL; U15039; AAA68632.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL       1     22       BY SIMILARITY.
FT   CHAIN       23    230       MAJOR PRION PROTEIN.
FT   PROPEP     231    253       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID      230    230       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID   179    214       BY SIMILARITY.
FT   CARBOHYD   181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD   197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN      51     91       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                               Q.
FT   REPEAT      51     59       1.
FT   REPEAT      60     67       2.
FT   REPEAT      68     75       3.
FT   REPEAT      76     83       4.
FT   REPEAT      84     91       5.
SQ   SEQUENCE   253 AA;  27633 MW;  CF8F59F040996B74 CRC64;
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  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
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Db    214 CITQYERESQAYY 226
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RESULT   7
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ID   PRIO_PONPY     STANDARD;      PRT;   253 AA.
AC   P40256;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Pongo pygmaeus (Orangutan).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.
OX   NCBI_TaxID=9600;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U08305; AAC50093.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    230       MAJOR PRION PROTEIN.
FT   PROPEP      231    253       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       230    230       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    179    214       BY SIMILARITY.
FT   CARBOHYD    181    181       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    197    197       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     91       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     59       1.
FT   REPEAT       60     67       2.
FT   REPEAT       68     75       3.
FT   REPEAT       76     83       4.
FT   REPEAT       84     91       5.
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  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
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Db    214 CITQYERESQAYY 226
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ID   PRIO_CERAT     STANDARD;      PRT;   238 AA.
AC   Q95145; Q95200;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Cercocebus aterrimus, and Macaca sylvanus (Barbary ape).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Cercocebus.
OX   NCBI_TaxID=36222, 9546;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   der Kuyl A.C., Dekker J.T., Goudsmit J.;
RL   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U75384; AAB50623.1; -.
DR   EMBL; U75382; AAB50629.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN        16    215       MAJOR PRION PROTEIN.
FT   PROPEP      216    238       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       215    215       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    164    199       BY SIMILARITY.
FT   CARBOHYD    166    166       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    182    182       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       44     76       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       44     52       1.
FT   REPEAT       53     60       2.
FT   REPEAT       61     68       3.
FT   REPEAT       69     71       4.
FT   REPEAT       71     76       5.
SQ   SEQUENCE   238 AA;  26123 MW;  5F59A3EBC3E3531B CRC64;
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  Query Match             95.8%;  Score 69;  DB 1;  Length 238;
  Best Local Similarity   92.3%;  Pred. No. 6.7e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          ||||||:||||||
Db    199 CITQYEKESQAYY 211
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RESULT   9
PRIO_AOTTR
ID   PRIO_AOTTR     STANDARD;      PRT;   239 AA.
AC   P40245;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-NOV-1995 (Rel. 32, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Aotus trivirgatus (Night monkey) (Douroucouli).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Aotinae; Aotus.
OX   NCBI_TaxID=9505;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U08293; AAC50082.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN         16   >239       MAJOR PRION PROTEIN.
FT   DISULFID     171    206       BY SIMILARITY.
FT   CARBOHYD     173    173       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     189    189       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN        44     83       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                 Q.
FT   REPEAT        44     51       1.
FT   REPEAT        52     59       2.
FT   REPEAT        60     67       3.
FT   REPEAT        68     75       4.
FT   REPEAT        76     83       5.
FT   NON_TER      239    239
SQ   SEQUENCE   239 AA;  26246 MW;  2EFB77E354B7024A CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 239;
  Best Local Similarity   92.3%;  Pred. No. 6.8e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     206 CITQYEKESQAYY 218


RESULT  10
PRIO_CALMO
ID   PRIO_CALMO     STANDARD;      PRT;   241 AA.
AC   P40248;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-NOV-1995 (Rel. 32, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Callicebus moloch (Dusky titi).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Callicebinae;
OC   Callicebus.
OX   NCBI_TaxID=9523;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U08312; AAC50100.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN         16   >241       MAJOR PRION PROTEIN.
FT   DISULFID     172    207       BY SIMILARITY.
FT   CARBOHYD     174    174       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     190    190       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN        44     84       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                 Q.
FT   REPEAT        44     52       1.
FT   REPEAT        53     60       2.
FT   REPEAT        61     68       3.
FT   REPEAT        69     76       4.
FT   REPEAT        77     84       5.
FT   NON_TER      241    241
SQ   SEQUENCE   241 AA;  26373 MW;  C6D2013EE7CAEC93 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 241;
  Best Local Similarity   92.3%;  Pred. No. 6.8e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     207 CITQYEKESQAYY 219


RESULT  11
PRIO_MANSP
ID   PRIO_MANSP     STANDARD;      PRT;   241 AA.
AC   P40255;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Mandrillus sphinx (Mandrill) (Papio sphinx).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Mandrillus.
OX   NCBI_TaxID=9561;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U08303; AAC50091.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN        16    223       MAJOR PRION PROTEIN.
FT   PROPEP      224   >241       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       223    223       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    172    207       BY SIMILARITY.
FT   CARBOHYD    174    174       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    190    190       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       44     84       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       44     52       1.
FT   REPEAT       53     60       2.
FT   REPEAT       61     68       3.
FT   REPEAT       69     76       4.
FT   REPEAT       77     84       5.
FT   NON_TER     241    241
SQ   SEQUENCE   241 AA;  26398 MW;  E539D84E2E2B59DE CRC64;
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  Query Match             95.8%;  Score 69;  DB 1;  Length 241;
  Best Local Similarity   92.3%;  Pred. No. 6.8e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     207 CITQYEKESQAYY 219
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RESULT  12
PRIO_CERAE
ID   PRIO_CERAE     STANDARD;      PRT;   245 AA.
AC   P40250;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   01-OCT-1996 (Rel. 34, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C).
GN   PRNP.
OS   Cercopithecus aethiops (Green monkey) (Grivet), and
OS   Cercopithecus dianae.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Cercopithecus.
OX   NCBI_TaxID=9534, 36224;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=95139066; PubMed=7837269;
RA   Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT   "Prion protein gene variation among primates.";
RL   J. Mol. Biol. 245:362-374(1995).
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U08291; AAC50080.1; -.
DR   EMBL; U08292; AAC50081.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PRINTS; PR00341; PRION.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   SIGNAL        1     22       BY SIMILARITY.
FT   CHAIN        23    222       MAJOR PRION PROTEIN.
FT   PROPEP      223    245       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID       222    222       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID    171    206       BY SIMILARITY.
FT   CARBOHYD    173    173       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    189    189       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN       51     83       4 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                Q.
FT   REPEAT       51     59       1.
FT   REPEAT       60     67       2.
FT   REPEAT       68     75       3.
FT   REPEAT       76     83       4.
SQ   SEQUENCE   245 AA;  26885 MW;  D582B58E2726C99A CRC64;
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  Query Match             95.8%;  Score 69;  DB 1;  Length 245;
  Best Local Similarity   92.3%;  Pred. No. 7e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     206 CITQYEKESQAYY 218
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RESULT  13
PRIO_CERMO
ID   PRIO_CERMO     STANDARD;      PRT;   246 AA.
AC   Q95172; Q95173;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   15-JUL-1998 (Rel. 36, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Cercopithecus mona, and Cercopithecus neglectus.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Cercopithecus.
OX   NCBI_TaxID=36226, 36227;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   der Kuyl A.C., Dekker J.T., Goudsmit J.;
RL   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
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CC   ----------------------------------------------------------------------
DR   EMBL; U75386; AAB50625.1; -.
DR   EMBL; U75387; AAB50626.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN         16    223       MAJOR PRION PROTEIN.
FT   PROPEP       224    246       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID        223    223       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID     172    207       BY SIMILARITY.
FT   CARBOHYD     174    174       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     190    190       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN        44     84       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                 Q.
FT   REPEAT        44     52       1.
FT   REPEAT        53     60       2.
FT   REPEAT        61     68       3.
FT   REPEAT        69     76       4.
FT   REPEAT        77     84       5.
SQ   SEQUENCE   246 AA;  26900 MW;  835D147CA2B4FDD3 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 246;
  Best Local Similarity   92.3%;  Pred. No. 7e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     207 CITQYEKESQAYY 219


RESULT  14
PRIO_CERPA
ID   PRIO_CERPA     STANDARD;      PRT;   246 AA.
AC   Q95174;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   01-NOV-1997 (Rel. 35, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Cercopithecus patas.
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Cercopithecus.
OX   NCBI_TaxID=27677;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   der Kuyl A.C., Dekker J.T., Goudsmit J.;
RL   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
```

```
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U75388; AAB50627.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN         16    223       MAJOR PRION PROTEIN.
FT   PROPEP       224    246       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID        223    223       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID     172    207       BY SIMILARITY.
FT   CARBOHYD     174    174       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     190    190       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN        44     84       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                 Q.
FT   REPEAT        44     52       1.
FT   REPEAT        53     60       2.
FT   REPEAT        61     68       3.
FT   REPEAT        69     76       4.
FT   REPEAT        77     84       5.
SQ   SEQUENCE   246 AA;  26886 MW;  D35D105BBEC53108 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 246;
  Best Local Similarity   92.3%;  Pred. No. 7e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     207 CITQYEKESQAYY 219


RESULT  15
PRIO_CERTO
ID   PRIO_CERTO     STANDARD;      PRT;   246 AA.
AC   Q95176;
DT   01-NOV-1997 (Rel. 35, Created)
DT   01-NOV-1997 (Rel. 35, Last sequence update)
DT   01-NOV-1997 (Rel. 35, Last annotation update)
DE   MAJOR PRION PROTEIN PRECURSOR (PRP) (PRP27-30) (PRP33-35C) (FRAGMENT).
GN   PRNP.
OS   Cercocebus torquatus atys (Red-crowned mangabey) (Sooty mangabey).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC   Cercopithecinae; Cercocebus.
OX   NCBI_TaxID=9531;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   der Kuyl A.C., Dekker J.T., Goudsmit J.;
RL   Submitted (NOV-1996) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: THE FUNCTION OF PRP IS NOT KNOWN. PRP IS ENCODED IN THE
CC       HOST GENOME AND IS EXPRESSED BOTH IN NORMAL AND INFECTED CELLS.
CC   -!- SUBUNIT: PRP HAS A TENDENCY TO AGGREGATE YIELDING POLYMERS CALLED
CC       "RODS".
CC   -!- SUBCELLULAR LOCATION: ATTACHED TO THE MEMBRANE BY A GPI-ANCHOR.
CC   -!- DISEASE: PRP IS FOUND IN HIGH QUANTITY IN THE BRAIN OF HUMANS AND
CC       ANIMALS INFECTED WITH THE DEGENERATIVE NEUROLOGICAL DISEASES KURU,
CC       CREUTZFELDT-JAKOB DISEASE (CJD), GERSTMANN-STRAUSSLER SYNDROME
CC       (GSS), SCRAPIE, BOVINE SPONGIFORM ENCEPHALOPATHY (BSE),
CC       TRANSMISSIBLE MINK ENCEPHALOPATHY (TME), ETC.
CC   -!- SIMILARITY: BELONGS TO THE PRION FAMILY.
CC   ----------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
```

```
CC   modified and this statement is not removed.  Usage  by  and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ----------------------------------------------------------------------
DR   EMBL; U75385; AAB50628.1; -.
DR   HSSP; P04925; 1AG2.
DR   InterPro; IPR000817; -.
DR   Pfam; PF00377; prion; 1.
DR   PROSITE; PS00291; PRION_1; 1.
DR   PROSITE; PS00706; PRION_2; 1.
KW   Prion; Brain; Glycoprotein; GPI-anchor; Repeat; Signal.
FT   NON_TER       1      1
FT   SIGNAL       <1     15       BY SIMILARITY.
FT   CHAIN         16    223       MAJOR PRION PROTEIN.
FT   PROPEP       224    246       REMOVED IN MATURE FORM (BY SIMILARITY).
FT   LIPID        223    223       GPI-ANCHOR (BY SIMILARITY).
FT   DISULFID     172    207       BY SIMILARITY.
FT   CARBOHYD     174    174       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD     190    190       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   DOMAIN        44     84       5 X 8 AA TANDEM REPEATS OF P-H-G-G-G-W-G-
FT                                 Q.
FT   REPEAT        44     52       1.
FT   REPEAT        53     60       2.
FT   REPEAT        61     68       3.
FT   REPEAT        69     76       4.
FT   REPEAT        77     84       5.
SQ   SEQUENCE   246 AA;  26914 MW;  F58679CBBEC5ADC7 CRC64;


  Query Match             95.8%;  Score 69;  DB 1;  Length 246;
  Best Local Similarity   92.3%;  Pred. No. 7e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           ||||||:||||||
Db     207 CITQYEKESQAYY 219


Search completed: October 25, 2001, 08:56:07
Job time: 270 sec
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GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:51:58 ; Search time 20.34 Seconds
(without alignments)
13.160 Million cell updates/sec

Title: US-09-576-724-2
Perfect score: 72
Sequence: 1 CITQYQRESQAYY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 197339 seqs, 20590346 residues

Total number of hits satisfying chosen parameters: 197339

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	72	100.0	15	1	US-08-244-701B-48	Sequence 48, Appl
2	72	100.0	22	1	US-08-244-701B-33	Sequence 33, Appl
3	72	100.0	22	1	US-08-244-701B-35	Sequence 35, Appl
4	72	100.0	255	1	US-08-242-188-4	Sequence 4, Appli
5	72	100.0	255	1	US-08-509-261A-4	Sequence 4, Appli
6	72	100.0	255	1	US-08-660-626-10	Sequence 10, Appl
7	72	100.0	255	1	US-08-692-892-4	Sequence 4, Appli
8	72	100.0	255	2	US-08-713-939A-4	Sequence 4, Appli
9	72	100.0	255	2	US-08-868-162A-24	Sequence 24, Appl
10	72	100.0	255	4	US-09-031-168-10	Sequence 10, Appl
11	72	100.0	256	4	US-09-128-450-22	Sequence 22, Appl
12	72	100.0	264	4	US-09-128-450-21	Sequence 21, Appl
13	69	95.8	22	1	US-08-244-701B-37	Sequence 37, Appl
14	69	95.8	142	1	US-08-556-823-10	Sequence 10, Appl
15	69	95.8	253	1	US-08-242-188-2	Sequence 2, Appli
16	69	95.8	253	1	US-08-509-261A-2	Sequence 2, Appli
17	69	95.8	253	1	US-08-660-626-8	Sequence 8, Appli
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19	69	95.8	253	2	US-08-713-939A-2	Sequence 2, Appli
20	69	95.8	253	2	US-08-868-162A-22	Sequence 22, Appl
21	69	95.8	253	4	US-09-031-168-8	Sequence 8, Appli
22	69	95.8	253	4	US-09-128-450-20	Sequence 20, Appl
23	68	94.4	254	1	US-08-242-188-1	Sequence 1, Appli
24	68	94.4	254	1	US-08-509-261A-1	Sequence 1, Appli
25	68	94.4	254	1	US-08-660-626-7	Sequence 7, Appli
26	68	94.4	254	1	US-08-692-892-1	Sequence 1, Appli
27	68	94.4	254	2	US-08-713-939A-1	Sequence 1, Appli
28	68	94.4	254	2	US-08-868-162A-21	Sequence 21, Appl
29	68	94.4	254	4	US-09-031-168-7	Sequence 7, Appli
30	68	94.4	254	4	US-09-128-450-19	Sequence 19, Appl
31	68	94.4	254	4	US-09-128-450-28	Sequence 28, Appl
32	68	94.4	263	1	US-08-242-188-3	Sequence 3, Appli
33	68	94.4	263	1	US-08-509-261A-3	Sequence 3, Appli
34	68	94.4	263	1	US-08-660-626-9	Sequence 9, Appli
35	68	94.4	263	1	US-08-692-892-3	Sequence 3, Appli
36	68	94.4	263	2	US-08-713-939A-3	Sequence 3, Appli
37	68	94.4	263	2	US-08-868-162A-23	Sequence 23, Appl
38	68	94.4	263	4	US-09-031-168-9	Sequence 9, Appli
39	64	88.9	142	1	US-08-556-823-2	Sequence 2, Appli
40	64	88.9	254	4	US-09-128-450-26	Sequence 26, Appl
41	57	79.2	208	4	US-09-128-450-18	Sequence 18, Appl
42	55	76.4	24	1	US-08-244-701B-62	Sequence 62, Appl
43	40	55.6	528	3	US-08-688-988-6	Sequence 6, Appli
44	39	54.2	437	3	US-08-688-988-8	Sequence 8, Appli
45	39	54.2	524	3	US-08-688-988-34	Sequence 34, Appl

ALIGNMENTS

RESULT 1
US-08-244-701B-48
; Sequence 48, Application US/08244701B
; Patent No. 5773572
; GENERAL INFORMATION:
; APPLICANT: Fishleigh, Robert V.
; APPLICANT: Robson, Barry
; APPLICANT: Mee, Roger P.
; TITLE OF INVENTION: Fragments of Prion Proteins
; NUMBER OF SEQUENCES: 67
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/244,701B
; FILING DATE: 02-JUN-1994
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Fanucci, Allan A.
; REGISTRATION NUMBER: 30,256
; REFERENCE/DOCKET NUMBER: 8080-007
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 48:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 15 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-244-701B-48

Query Match 100.0%; Score 72; DB 1; Length 15;
Best Local Similarity 100.0%; Pred. No. 2.4e-07;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
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Db      1 CITQYQRESQAYY 13


RESULT   2
US-08-244-701B-33
; Sequence 33, Application US/08244701B
; Patent No. 5773572
;  GENERAL INFORMATION:
;    APPLICANT:  Fishleigh, Robert V.
;    APPLICANT:  Robson, Barry
;    APPLICANT:  Mee, Roger P.
;    TITLE OF INVENTION:  Fragments of Prion Proteins
;    NUMBER OF SEQUENCES:  67
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/244,701B
;      FILING DATE:  02-JUN-1994
;      CLASSIFICATION:  436
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fanucci, Allan A.
;      REGISTRATION NUMBER:  30,256
;      REFERENCE/DOCKET NUMBER:  8080-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  33:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  22 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  1
;      OTHER INFORMATION:  /label= X
;      OTHER INFORMATION:  /note= "X may be absent or present independently
;      OTHER INFORMATION:  of Y and denotes one or more amino acid(s)"
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  22
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;      OTHER INFORMATION:  /note= "Y may be absent or present independently
;      OTHER INFORMATION:  of X and denotes one or more amino acid(s)"
US-08-244-701B-33


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  Best Local Similarity  100.0%;  Pred. No. 3.6e-07;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
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Db      3 CITQYQRESQAYY 15


RESULT   3
US-08-244-701B-35
; Sequence 35, Application US/08244701B
; Patent No. 5773572
;  GENERAL INFORMATION:
;    APPLICANT:  Fishleigh, Robert V.
;    APPLICANT:  Robson, Barry
;    APPLICANT:  Mee, Roger P.
;    TITLE OF INVENTION:  Fragments of Prion Proteins
;    NUMBER OF SEQUENCES:  67
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/244,701B
;      FILING DATE:  02-JUN-1994
;      CLASSIFICATION:  436
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fanucci, Allan A.
;      REGISTRATION NUMBER:  30,256
;      REFERENCE/DOCKET NUMBER:  8080-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  35:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  22 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  1
;      OTHER INFORMATION:  /label= X
;      OTHER INFORMATION:  /note= "X may be absent or present independently
;      OTHER INFORMATION:  of Y and denotes one or more amino acid(s)"
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  22
;      OTHER INFORMATION:  /label= Y
;      OTHER INFORMATION:  /note= "Y may be absent or present independently
;      OTHER INFORMATION:  of X and denotes one or more amino acid(s)"
US-08-244-701B-35


  Query Match           100.0%;  Score 72;  DB 1;  Length 22;
  Best Local Similarity  100.0%;  Pred. No. 3.6e-07;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
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Db      3 CITQYQRESQAYY 15


RESULT   4
US-08-242-188-4
; Sequence 4, Application US/08242188
; Patent No. 5565186
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  METHOD OF DETECTING PRIONS IN A SAMPLE
;    TITLE OF INVENTION:  AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bosicevic
```

```
;       STREET:  2200 Sand Hill Road
;       CITY:  Menlo Park
;       STATE:  CA
;       COUNTRY:  USA
;       ZIP:  94025
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.25
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/242,188
;       FILING DATE:  13-MAY-1994
;       CLASSIFICATION:  435
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Bosicevic, Karl
;       REGISTRATION NUMBER:  28,807
;       REFERENCE/DOCKET NUMBER:  06510/014001
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (415) 854-5277
;       TELEFAX:  (415) 854-0875
;   INFORMATION FOR SEQ ID NO:  4:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  255 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
;     ORIGINAL SOURCE:
;       ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-242-188-4


  Query Match             100.0%;  Score 72;  DB 1;  Length 255;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    216 CITQYQRESQAYY 228


RESULT   5
US-08-509-261A-4
; Sequence 4, Application US/08509261A
; Patent No. 5763244
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  Method of Detecting Prions
;    TITLE OF INVENTION:  in a Sample and Transgenic Animal Used fore
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/509,261A
;      FILING DATE:  31-JUL-1995
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-030001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-509-261A-4


  Query Match             100.0%;  Score 72;  DB 1;  Length 255;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    216 CITQYQRESQAYY 228


RESULT   6
US-08-660-626-10
; Sequence 10, Application US/08660626
; Patent No. 5789655
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Glenn C. Telling
;    APPLICANT:  Fred E. Cohen
;    APPLICANT:  Michael R. Scott
;    TITLE OF INVENTION:  TRANSGENIC ANIMALS EXPRESSING
;    TITLE OF INVENTION:  EPITOPE-TAGGED PROTEINS
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/660,626
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-660-626-10


  Query Match             100.0%;  Score 72;  DB 1;  Length 255;
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  Best Local Similarity   100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
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Db     216 CITQYQRESQAYY 228


RESULT   7
US-08-692-892-4
; Sequence 4, Application US/08692892
; Patent No. 5792901
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  DETECTING PRIONS IN A SAMPLE AND
;    TITLE OF INVENTION:  PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bozicevic
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/692,892
;      FILING DATE:  30-JULY-1996
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/056001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-692-892-4


  Query Match             100.0%;  Score 72;  DB 1;  Length 255;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||||||||||
Db     216 CITQYQRESQAYY 228


RESULT   8
US-08-713-939A-4
; Sequence 4, Application US/08713939A
; Patent No. 5846533
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Williamson, R. Anthony
;    APPLICANT:  Burton, Dennis R.
;    TITLE OF INVENTION:  ANTIBODIES SPECIFIC FOR NATIVE PrP
;    NUMBER OF SEQUENCES:  86
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/713,939A
;      FILING DATE:  13-SEP-1996
;      CLASSIFICATION:  436
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/059001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-854-5277
;      TELEFAX:  415-854-0875
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-713-939A-4


  Query Match             100.0%;  Score 72;  DB 2;  Length 255;
  Best Local Similarity   100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||||||||||
Db     216 CITQYQRESQAYY 228


RESULT   9
US-08-868-162A-24
; Sequence 24, Application US/08868162A
; Patent No. 5962669
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley
;    APPLICANT:  Cohen, Fred
;    APPLICANT:  James, Thomas
;    APPLICANT:  Kaneko, Kiyotoshi
;    TITLE OF INVENTION:  Prion Protein Modulator Factor
;    TITLE OF INVENTION:
;    NUMBER OF SEQUENCES:  24
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/868,162A
;      FILING DATE:  03-JUN-1997
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;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-083001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  24:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-868-162A-24


  Query Match            100.0%;  Score 72;  DB 2;  Length 255;
  Best Local Similarity  100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    216 CITQYQRESQAYY 228


RESULT  10
US-09-031-168-10
; Sequence 10, Application US/09031168
; Patent No. 6150583
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Glenn C. Telling
;    APPLICANT:  Fred E. Cohen
;    APPLICANT:  Michael R. Scott
;    TITLE OF INVENTION:  TRANSGENIC ANIMALS EXPRESSING
;    TITLE OF INVENTION:  EPITOPE-TAGGED PROTEINS
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/031,168
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/660,626
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-09-031-168-10


  Query Match            100.0%;  Score 72;  DB 4;  Length 255;
  Best Local Similarity  100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    216 CITQYQRESQAYY 228


RESULT  11
US-09-128-450-22
; Sequence 22, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
;  APPLICANT: Chesebro, Bruce W
;  APPLICANT:  Caughey, Byron W
;  APPLICANT:  Chabry, Joelle
;  APPLICANT:  Priola, Susette
;  TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
;  TITLE OF INVENTION:  Protein
;  FILE REFERENCE: 50121
;  CURRENT APPLICATION NUMBER: US/09/128,450
;  CURRENT FILING DATE:  1998-08-03
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 22
;   LENGTH: 256
;   TYPE: PRT
;   ORGANISM: Ovis aries
US-09-128-450-22


  Query Match            100.0%;  Score 72;  DB 4;  Length 256;
  Best Local Similarity  100.0%;  Pred. No. 5.8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    217 CITQYQRESQAYY 229


RESULT  12
US-09-128-450-21
; Sequence 21, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
;  APPLICANT: Chesebro, Bruce W
;  APPLICANT:  Caughey, Byron W
;  APPLICANT:  Chabry, Joelle
;  APPLICANT:  Priola, Susette
;  TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
;  TITLE OF INVENTION:  Protein
;  FILE REFERENCE: 50121
;  CURRENT APPLICATION NUMBER: US/09/128,450
;  CURRENT FILING DATE:  1998-08-03
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 21
;   LENGTH: 264
;   TYPE: PRT
;   ORGANISM: Bos taurus
US-09-128-450-21
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  Query Match             100.0%;  Score 72;  DB 4;  Length 264;
  Best Local Similarity   100.0%;  Pred. No. 6e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||||||||||
Db   225 CITQYQRESQAYY 237


RESULT  13
US-08-244-701B-37
; Sequence 37, Application US/08244701B
; Patent No. 5773572
;  GENERAL INFORMATION:
;    APPLICANT:  Fishleigh, Robert V.
;    APPLICANT:  Robson, Barry
;    APPLICANT:  Mee, Roger P.
;    TITLE OF INVENTION:  Fragments of Prion Proteins
;    NUMBER OF SEQUENCES:  67
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/244,701B
;      FILING DATE:  02-JUN-1994
;      CLASSIFICATION:  436
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fanucci, Allan A.
;      REGISTRATION NUMBER:  30,256
;      REFERENCE/DOCKET NUMBER:  8080-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  37:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  22 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  1
;      OTHER INFORMATION:  /label= X
;      OTHER INFORMATION:  /note= "X may be absent or present independently
;      OTHER INFORMATION:  of Y and denotes one or more amino acid(s)"
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  22
;      OTHER INFORMATION:  /label= Y
;      OTHER INFORMATION:  /note= "Y may be absent or present independently
;      OTHER INFORMATION:  of X and denotes one or more amino acid(s)"
US-08-244-701B-37


  Query Match             95.8%;  Score 69;  DB 1;  Length 22;
  Best Local Similarity   92.3%;  Pred. No. 1.3e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||:|||||||
Db       3 CITQYERESQAYY 15


RESULT  14
US-08-556-823-10
; Sequence 10, Application US/08556823
; Patent No. 5750361
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Kiyotoshi Kaneko
;    APPLICANT:  Fred E. Cohen
;    TITLE OF INVENTION:  Formation and use of prion protein
;    TITLE OF INVENTION:
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/556,823
;      FILING DATE:
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  142 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-556-823-10


  Query Match             95.8%;  Score 69;  DB 1;  Length 142;
  Best Local Similarity   92.3%;  Pred. No. 1.1e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
           |||||:|||||||
Db     125 CITQYERESQAYY 137


RESULT  15
US-08-242-188-2
; Sequence 2, Application US/08242188
; Patent No. 5565186
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  METHOD OF DETECTING PRIONS IN A SAMPLE
;    TITLE OF INVENTION:  AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bosicevic
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
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;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  PatentIn Release #1.0, Version #1.25
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/242,188
;       FILING DATE:  13-MAY-1994
;       CLASSIFICATION:  435
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Bosicevic, Karl
;       REGISTRATION NUMBER:  28,807
;       REFERENCE/DOCKET NUMBER:  06510/014001
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (415) 854-5277
;       TELEFAX:  (415) 854-0875
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  253 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
;     ORIGINAL SOURCE:
;       ORGANISM:  HUMAN PRION PROTEIN, HuPrP
US-08-242-188-2


  Query Match          95.8%;  Score 69;  DB 1;  Length 253;
  Best Local Similarity   92.3%;  Pred. No. 2.1e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYQRESQAYY 13
             |||||:|||||||
Db     214 CITQYERESQAYY 226


Search completed: October 25, 2001, 08:51:58
Job time: 166 sec
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GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:50:02 ; Search time 22.96 Seconds
(without alignments)
43.130 Million cell updates/sec

Title: US-09-576-724-1
Perfect score: 72
Sequence: 1 CITQYERESQAYY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 219241 seqs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_68:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	72	100.0	232	2	S71041	major prion protei
2	72	100.0	252	2	S53631	major prion protei
3	72	100.0	253	1	UJHU	major prion protei
4	72	100.0	253	2	I37032	major prion protei
5	72	100.0	253	2	I61847	major prion protei
6	72	100.0	253	2	S53635	prion protein - si
7	72	100.0	253	2	S53617	major prion protei
8	72	100.0	253	2	S53614	major prion protei
9	72	100.0	253	2	S53616	major prion protei
10	69	95.8	239	2	S53633	major prion protei
11	69	95.8	241	2	S71056	major prion protei
12	69	95.8	241	2	S71048	major prion protei
13	69	95.8	245	2	S53627	major prion protei
14	69	95.8	245	2	S71045	major prion protei
15	69	95.8	252	2	I61848	major prion protei
16	69	95.8	252	2	S53634	major prion protei
17	69	95.8	253	2	I84423	major prion protei
18	69	95.8	253	2	S53618	major prion protei
19	69	95.8	253	2	S53619	major prion protei
20	69	95.8	253	2	S53620	major prion protei
21	69	95.8	253	2	S71055	major prion protei
22	69	95.8	253	2	S53623	major prion protei
23	69	95.8	253	2	S53624	major prion protei
24	69	95.8	253	2	S53625	major prion protei
25	69	95.8	256	2	JU0268	major prion protei
26	69	95.8	256	2	S37149	prion protein - go
27	69	95.8	256	2	A54281	major prion protei
28	69	95.8	260	2	S53629	major prion protei
29	69	95.8	264	2	A54330	major prion protei
30	66	91.7	264	2	S37137	prion protein - g:
31	65	90.3	226	2	A53892	prion-related pr:
32	65	90.3	254	2	A34759	prion protein - Ch
33	65	90.3	254	2	B34759	prion protein - go
34	65	90.3	254	2	A23544	major prion protei
35	65	90.3	257	2	JQ1900	major prion protei
36	61	84.7	254	1	UJHYIH	major prion PrP-Sc
37	61	84.7	257	2	A23545	major prion PrP27-
38	56	77.8	252	2	JC6175	prion protein - ra
39	43	59.7	524	2	G96687	probable beta-gluc
40	43	59.7	524	2	H96687	probable beta-gluc
41	42	58.3	524	2	S57621	thioglucosidase (E
42	42	58.3	1030	2	I39987	lantibiotic subtil
43	38	52.8	302	2	C64103	glycine--tRNA liga
44	38	52.8	303	1	SYECGA	glycine--tRNA liga
45	38	52.8	303	2	H86030	glycine tRNA synth

ALIGNMENTS

RESULT 1
S71041
major prion protein - black-handed spider monkey (fragment)
C;Species: Ateles geoffroyi (black-handed spider monkey)
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C;Accession: S71041; S53630
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71041
A;Molecule type: DNA
A;Residues: 1-232 <SCH>
A;Cross-references: EMBL:U08309; NID:g474376; PIDN:AAC50097.1; PID:g474377
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53630
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-194,'R',196-231 <SCW>
A;Cross-references: EMBL:U08309
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmem

Query Match 100.0%; Score 72; DB 2; Length 232;
Best Local Similarity 100.0%; Pred. No. 6.6e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     198 CITQYERESQAYY 210
```

RESULT 2
S53631
major prion protein - brown capuchin
C;Species: Cebus apella (brown capuchin, black-capped capuchin)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C;Accession: S53631; S71044
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53631
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-252 <SCH>
A;Cross-references: EMBL:U08295
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994

A;Reference number: S71041
A;Accession: S71044
A;Molecule type: DNA
A;Residues: 1-209,'E',211-252 <SCW>
A;Cross-references: EMBL:U08295; NID:g474348; PIDN:AAC50084.1; PID:g474349
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane prc

Query Match 100.0%; Score 72; DB 2; Length 252;
Best Local Similarity 100.0%; Pred. No. 7.2e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||||||||||
Db 213 CITQYERESQAYY 225

RESULT 3
UJHU
major prion protein precursor - human
N;Alternate names: 11K amyloid protein; 27-30K sialoglycoprotein; PrP 27-30; PrP 33-35C;
C;Species: Homo sapiens (man)
C;Date: 25-Oct-1987 #sequence_revision 12-Apr-1996 #text_change 16-Jun-2000
C;Accession: A24173; A40372; A05017; S14078; I54322; I68597; I58135; I59184; I79633; I79
R;Kretzschmar, H.A.; Stowring, L.E.; Westaway, D.; Stubblebine, W.H.; Prusiner, S.B.; De
DNA 5, 315-324, 1986
A;Title: Molecular cloning of a human prion protein cDNA.
A;Reference number: A24173; MUID:86300093
A;Accession: A24173
A;Molecule type: mRNA
A;Residues: 1-253 <KRE>
A;Cross-references: GB:M13899; NID:g190467; PIDN:AAA60182.1; PID:g190468
R;Puckett, C.; Concannon, P.; Casey, C.; Hood, L.
Am. J. Hum. Genet. 49, 320-329, 1991
A;Title: Genomic structure of the human prion protein gene.
A;Reference number: A40372; MUID:91328137
A;Accession: A40372
A;Status: not compared with conceptual translation
A;Molecule type: DNA
A;Residues: 1-80,89-253 <PUC>
A;Cross-references: GB:X83416; NID:g747846; PIDN:CAA58442.1; PID:g747847
A;Note: the deletion may be a polymorphism; the alternative deletion of 82-89 could not
R;Liao, Y.C.J.; Lebo, R.V.; Clawson, G.A.; Smuckler, E.A.
Science 233, 364-367, 1986
A;Reference number: A05017; MUID:86261778
A;Accession: A05017
A;Molecule type: mRNA
A;Residues: 8-117,119-253 <LIA>
A;Cross-references: GB:D00015; NID:g220015; PIDN:BAA00011.1; PID:g220016; GB:M13667; NID
R;Tagliavini, F.; Prelli, F.; Ghiso, J.; Bugiani, O.; Serban, D.; Prusiner, S.B.; Farlow
EMBO J. 10, 513-519, 1991
A;Title: Amyloid protein of Gerstmann-Straeussler-Scheinker disease (Indiana kindred) is
A;Reference number: S14078; MUID:91160504
A;Accession: S14078
A;Molecule type: protein
A;Residues: 58-72,'X',74-76,'XX',79,'XXX',83-86;111-128,'V',130-150 <TAG>
R;Diedrich, J.F.; Knopman, D.S.; List, J.F.; Olson, K.; Frey, W.H.
Hum. Mol. Genet. 1, 443-444, 1992
A;Title: Deletion in the prion protein gene in a demented patient.
A;Reference number: I54322; MUID:93250789
A;Accession: I54322
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 9-83,92-240 <RES>
A;Cross-references: GB:M81929; NID:g190517; PIDN:AAB59442.1; PID:g190518
A;Accession: I68597
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 8-240 <RE3>
A;Cross-references: GB:M81930; NID:g190519; PIDN:AAB59443.1; PID:g190520
R;Brown, P.; Goldfarb, L.G.; McCombie, W.R.; Nieto, A.; Squillacote, D.; Sheremata, W.;
Neurology 42, 422-427, 1992

A;Title: Atypical Creutzfeldt-Jakob disease in an American family with an inser...ata
A;Reference number: I58135; MUID:92140671
A;Accession: I58135
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 51-91,'PHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGG' <RE2>
A;Cross-references: GB:S80539; NID:g244698; PIDN:AAB21334.1; PID:g244699
R;Goldfarb, L.G.; Brown, P.; McCombie, W.R.; Goldgaber, D.; Swergold, G.D.; Wills, P.
Proc. Natl. Acad. Sci. U.S.A. 88, 10926-10930, 1991
A;Title: Transmissible familial Creutzfeldt-Jakob disease associated with five, seven
A;Reference number: I59184; MUID:92073400
A;Accession: I59184
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 60-67 <GOL>
A;Cross-references: GB:S71208; NID:g239877; PIDN:AAB20521.1; PID:g239878; GB:S71...
C;Genetics:
A;Gene: GDB:PRNP; CJD; PRIP
A;Cross-references: GDB:120720; OMIM:176640; OMIM:137440
A;Map position: 20pter-20p12
A;Introns: #status absent
A;Note: one intron occurs before the initiator codon
A;Note: this gene is associated with Creutzfeld-Jakob disease (CJD), Gerstmann-Str...ms
C;Superfamily: major prion protein
C;Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; ph...hat
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-230/Product: major prion protein #status predicted <MAT>
F;54-92/Region: 8-residue repeats (P-H-G-G-G-W-G-Q)
F;112-134/Domain: transmembrane #status predicted <TM1>
F;231-253/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;179-214/Disulfide bonds: #status predicted
F;181,197/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;230/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mat...

Query Match 100.0%; Score 72; DB 1; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.3e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||||||||||
Db 214 CITQYERESQAYY 226

RESULT 4
I37032
major prion protein precursor - gorilla
C;Species: Gorilla gorilla (gorilla)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 13-Aug-1999
C;Accession: I37032
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A;Title: Infectious amyloid precursor gene sequences in primates used for experimenta
A;Reference number: I36907; MUID:95083661
A;Accession: I37032
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-253 <RES>
A;Cross-references: EMBL:U15166; NID:g563208; PIDN:AAA68633.1; PID:g563209
C;Superfamily: major prion protein

Query Match 100.0%; Score 72; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 7.3e-06;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||||||||||
Db 214 CITQYERESQAYY 226

RESULT 5
I61847

```
major prion protein precursor - chimpanzee
C;Species: Pan troglodytes (chimpanzee)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 13-Aug-1999
C;Accession: I61847; S71060; S53615
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t
A;Reference number: I36907; MUID:95083661
A;Accession: I61847
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-253 <RES>
A;Cross-references: EMBL:U15039; NID:g609303; PIDN:AAA68632.1; PID:g609304
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71060
A;Molecule type: DNA
A;Residues: 1-253 <SCW>
A;Cross-references: EMBL:U08296; NID:g474350; PIDN:AAC50085.1; PID:g474351
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53615
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-210,'R',212-253 <SCH>
A;Cross-references: EMBL:U08296
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.3e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   6
S53635
prion protein - siamang
C;Species: Hylobates syndactylus (siamang)
C;Date: 15-Jul-1995 #sequence_revision 19-Apr-1996 #text_change 13-Aug-1999
C;Accession: S53635
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53635
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: EMBL:U08308; NID:g474374; PIDN:AAC50096.1; PID:g474375
A;Note: the source was designated as Symphalangus syndactylus
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, April 1994
C;Superfamily: major prion protein

  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.3e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   7
S53617
major prion protein - common gibbon
C;Species: Hylobates lar (common gibbon, white-handed gibbon)
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 13-Aug-1999
C;Accession: S53617; S71050
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53617
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: EMBL:U08299
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71050
A;Molecule type: DNA
A;Residues: 1-210,'E',212-253 <SCW>
A;Cross-references: EMBL:U08299; NID:g474356; PIDN:AAC50088.1; PID:g474357
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane

  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.3e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   8
S53614
major prion protein - gorilla
C;Species: Gorilla gorilla (gorilla)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C;Accession: S53614; S71049
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53614
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: EMBL:U08300
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71049
A;Molecule type: DNA
A;Residues: 1-210,'E',212-253 <SCW>
A;Cross-references: EMBL:U08300; NID:g474358; PIDN:AAC50089.1; PID:g474359
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmemb

  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.3e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   9
S53616
major prion protein - orangutan
C;Species: Pongo pygmaeus (orangutan)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
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C;Accession: S53616; S71059
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53616
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-253 <SCH>
A;Cross-references: EMBL:U08305
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71059
A;Molecule type: DNA
A;Residues: 1-210,'E',212-253 <SCW>
A;Cross-references: EMBL:U08305; NID:g474368; PIDN:AAC50093.1; PID:g474369
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.3e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 CITQYERESQAYY 226


RESULT  10
S53633
major prion protein - douroucouli (fragment)
C;Species: Aotus trivirgatus (douroucouli, night monkey, owl monkey)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C;Accession: S53633; S71042
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53633
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-239 <SCH>
A;Cross-references: EMBL:U08293
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71042
A;Molecule type: DNA
A;Residues: 1-202,'E',204-239 <SCW>
A;Cross-references: EMBL:U08293; NID:g474344; PIDN:AAC50082.1; PID:g474345
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane pro

  Query Match             95.8%;  Score 69;  DB 2;  Length 239;
  Best Local Similarity   92.3%;  Pred. No. 2.5e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          ||||||:||||||
Db    206 CITQYEKESQAYY 218


RESULT  11
S71056
major prion protein - mandrill (fragment)
C;Species: Papio sphinx, Mandrillus sphinx (mandrill)
C;Date: 27-Oct-1996 #sequence_revision 14-Feb-1997 #text_change 13-Aug-1999
C;Accession: S71056; S53621
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71056
A;Molecule type: DNA
A;Residues: 1-241 <SCH>
A;Cross-references: EMBL:U08303; NID:g474364; PIDN:AAC50091.1; PID:g474365
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53621
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-203,'R',205-240 <SCW>
A;Cross-references: EMBL:U08303
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane

  Query Match             95.8%;  Score 69;  DB 2;  Length 241;
  Best Local Similarity   92.3%;  Pred. No. 2.5e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          ||||||:||||||
Db    207 CITQYEKESQAYY 219


RESULT  12
S71048
major prion protein - Callicebus moloch (fragment)
C;Species: Callicebus moloch
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C;Accession: S71048; S53632
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71048
A;Molecule type: DNA
A;Residues: 1-241 <SCH>
A;Cross-references: EMBL:U08312; NID:g475585; PIDN:AAC50100.1; PID:g475586
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53632
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-203,'R',205-240 <SCW>
A;Cross-references: EMBL:U08312
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane

  Query Match             95.8%;  Score 69;  DB 2;  Length 241;
  Best Local Similarity   92.3%;  Pred. No. 2.5e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          ||||||:||||||
Db    207 CITQYEKESQAYY 219


RESULT  13
S53627
major prion protein - green monkey
C;Species: Cercopithecus aethiops (green monkey, grivet)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 13-Aug-1999
C;Accession: S53627; S71043
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53627
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A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-245 <SCH>
A;Cross-references: EMBL:U08291
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71043
A;Molecule type: DNA
A;Residues: 1-10,'V',12-202,'E',204-245 <SCW>
A;Cross-references: EMBL:U08291; NID:g474340; PIDN:AAC50080.1; PID:g474341
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane prc

Query Match 95.8%; Score 69; DB 2; Length 245;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||:||||||
Db 206 CITQYEKESQAYY 218

RESULT 14
S71045
major prion protein - Cercopithecus dianae
C;Species: Cercopithecus dianae
C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 13-Aug-1999
C;Accession: S71045; S53628
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71045
A;Molecule type: DNA
A;Residues: 1-245 <SCH>
A;Cross-references: EMBL:U08292; NID:g474342; PIDN:AAC50081.1; PID:g474343
R;Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates.
A;Reference number: S53614; MUID:95139066
A;Accession: S53628
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 8-10,'L',12-202,'R',204-239 <SCW>
A;Cross-references: EMBL:U08292
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie; transmembrane prc

Query Match 95.8%; Score 69; DB 2; Length 245;
Best Local Similarity 92.3%; Pred. No. 2.5e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||:||||||
Db 206 CITQYEKESQAYY 218

RESULT 15
I61848
major prion protein precursor - common squirrel monkey
C;Species: Saimiri sciureus (common squirrel monkey)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 13-Aug-1999
C;Accession: I61848
R;Cervenakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D
Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A;Title: Infectious amyloid precursor gene sequences in primates used for experimental t
A;Reference number: I36907; MUID:95083661
A;Accession: I61848
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-252 <RES>
A;Cross-references: EMBL:U15165; NID:g595852; PIDN:AAA68636.1; PID:g595853
C;Superfamily: major prion protein

Query Match 95.8%; Score 69; DB 2; Length 252;
Best Local Similarity 92.3%; Pred. No. 2.6e-05;
Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||:||||||
Db 213 CITQYEKESQAYY 225

Search completed: October 25, 2001, 08:52:28
Job time: 146 sec

GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:46:22 ; Search time 32.8 Seconds
(without alignments)
24.028 Million cell updates/sec

Title: US-09-576-724-1
Perfect score: 72
Sequence: 1 CITQYERESQAYY 13

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 412676 seqs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	72	100.0	22	14	AAR38046	Human prion protei
2	72	100.0	142	18	AAW17686	Prion protein pept
3	72	100.0	208	21	AAB07318	Human prion protei
4	72	100.0	208	21	AAB07329	Human prion protei
5	72	100.0	253	17	AAR86715	Human prion protei
6	72	100.0	253	19	AAW69660	Human prion protei
7	72	100.0	253	20	AAY07994	Human prion protei
8	72	100.0	253	20	AAW85901	Human prion protei
9	72	100.0	253	21	AAB15035	Human prion protei
10	72	100.0	253	21	AAB06272	Human PrP prion pr
11	72	100.0	253	21	AAY81485	Human prion protei
12	72	100.0	253	22	AAB72338	Human prion prote;
13	72	100.0	253	22	AAB72339	Chimpanzee prion r
14	72	100.0	253	22	AAB72340	Orangutan prion pr
15	72	100.0	253	22	AAB72341	Gorilla prion prot
16	72	100.0	253	22	AAB72345	Gibbon prion prote
17	72	100.0	253	22	AAB72354	Capuchin prion pro
18	72	100.0	253	22	AAB72356	Siamang prion prot
19	72	100.0	253	22	AAB61770	Human prion protei
20	69	95.8	15	14	AAR38048	Prion protein regi
21	69	95.8	17	22	AAB69083	Bovine prion prote
22	69	95.8	22	14	AAR38042	Bovine prion prote
23	69	95.8	22	14	AAR38044	Ovine prion protei
24	69	95.8	26	22	AAB69085	Prion protein pept
25	69	95.8	217	21	AAB07317	Cattle prion prote
26	69	95.8	217	21	AAB07328	Cattle prion prote
27	69	95.8	219	19	AAW70261	Bovine prion prote
28	69	95.8	219	20	AAW93571	Bovine rbPrP prote
29	69	95.8	245	22	AAB72342	Monkey prion prote
30	69	95.8	245	22	AAB72352	Cercopithe prion p
31	69	95.8	253	22	AAB72344	Rhesus monkey prio
32	69	95.8	253	22	AAB72346	Prion protein cell
33	69	95.8	253	22	AAB72347	Prion protein cell
34	69	95.8	253	22	AAB72348	Prion protein cell
35	69	95.8	253	22	AAB72349	Prion protein cell
36	69	95.8	253	22	AAB72350	Marmoset prion pro
37	69	95.8	253	22	AAB72351	Hamadryas prion pr
38	69	95.8	253	22	AAB72353	Guereza prion prot
39	69	95.8	253	22	AAB72355	Prion protein cell
40	69	95.8	255	17	AAR86717	Sheep prion protei
41	69	95.8	255	19	AAW69662	Sheep prion protei
42	69	95.8	255	20	AAW85903	Sheep prion protei
43	69	95.8	256	10	AAP93674	Sheep PrP gene for
44	69	95.8	256	22	AAB72362	Sheep prion protei
45	69	95.8	256	22	AAB72365	Goat prion protein

ALIGNMENTS

RESULT 1
AAR38046
ID AAR38046 standard; protein; 22 AA.
XX
AC AAR38046;
XX
DT 14-OCT-1993 (first entry)
XX
DE Human prion protein region F #2.
XX
KW Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;
KW FSa; FSb; subfragment; antibody; treatment; spongiform encephalopathy;
KW human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
KW immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
KW resistance.
XX
OS Synthetic.
XX
FH Key Location/Qualifiers
FT Misc-difference 1
FT /note= "One or more residues or may be absent"
FT Misc-difference 2
FT /note= "May be absent"
FT Misc-difference 3
FT /note= "May be absent"
FT Misc-difference 4
FT /note= "May be absent"
FT Misc-difference 5
FT /note= "May be absent"
FT Misc-difference 18
FT /note= "May be absent"
FT Misc-difference 19
FT /note= "May be absent"
FT Misc-difference 20

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FT                  /note= "May be absent"
FT   Misc-difference 21
FT                  /note= "May be absent"
FT   Misc-difference 22
FT                  /note= "One or more residue or may be absent"
XX
PN   WO9311155-A.
XX
PD   10-JUN-1993.
XX
PF   03-DEC-1992;   92WO-GB02246.
XX
PR   03-DEC-1991;   91GB-0025747.
PR   10-JUL-1992;   92GB-0014663.
XX
PA   (PROT-) PROTEUS MOLECULAR DESIGN LTD.
XX
PI   Fishleigh RV,  Mee RP,  Robson B;
XX
DR   WPI; 1993-196994/24.
XX
PT   New polypeptide(s) contg. antigenic site of prion protein -
PT   useful for treatment and diagnosis of mammalian encephalopathies
PT   e.g. Creutzfeld-Jacob disease and kuru
XX
PS   Claim 28; Page 74; 82pp; English.
XX
CC   The sequences given in AAR38041-48 represent polypeptides which are
CC   derived from an antigenic site, region F, of a prion protein.  Prion
CC   proteins comprise six regions of interest (A-F), and two related frame
CC   shift peptides sequences caused by a repeating section in region E
CC   having a nucleic acid coding sequence frame shift mutation of +1 (FSa)
CC   or -1 (FSb).  These peptides (see also AAR38041-48) and antibodies
CC   raised against these may be used to treat or prevent spongiform
CC   encephalopathy in humans, sheep or cattle.  They can be used to block
CC   cellular binding and aggregation of prion proteins and to stimulate the
CC   mammalian immune system.  These peptides may be used to distinguish
CC   between the normal form of prion protein (PrPc) and the
CC   scrapie-associated form (PrPsc). These peptides may include rare or
CC   synthetic amino acids or a ratio- inverso peptide modification to improve
CC   resistance to enzymatic degradation.
XX
SQ   Sequence   22 AA;


  Query Match             100.0%;  Score 72;  DB 14;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 9.9e-07;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db      3 citqyeresqayy 15


RESULT   2
AAW17686
ID   AAW17686 standard; peptide; 142 AA.
XX
AC   AAW17686;
XX
DT   14-JAN-1998  (first entry)
XX
DE   Prion protein peptide Hu 90-231.
XX
KW   Prion protein; PrP; alpha helical domain; screening; inhibition;
KW   binding; scrapie; bovine spongiform encephalopathy; BSE; CJD;
KW   Creutzfeldt-Jakob disease; kuru; GSS; FFI; fatal familial insomnia;
KW   Gerstmann-Straussler-Scheinker disease; hamster; human.
XX
OS   Homo sapiens.
XX
PN   WO9716728-A1.
XX
PD   09-MAY-1997.
XX
PF   28-OCT-1996;   96WO-US17462.
XX
PR   02-NOV-1995;   95US-0556823.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Cohen FE,  Kaneko K,  Prusiner SB;
XX
DR   WPI; 1997-272248/24.
XX
PT   Prion proteins (PrPs) having at least one alpha-helical domain -
PT   used in assays for screening compounds able to inhibit or decrease
PT   the binding of PrP peptide(s) to cellular prion proteins or
PT   peptide(s)
XX
PS   Claim 11; Page 7-38; 50pp; English.
XX
CC   The present sequence represents a prion protein (PrP) peptide.
CC   PrP has an ability to induce a conformational change in cellular
CC   prion protein (PrP-c). Methods, for screening compounds which
CC   inhibit the binding of PrP-c to a PrP peptide, are used for screening
CC   for drugs that may be useful in the treatment prion-related disease
CC   e.g. scrapie, BSE (bovine spongiform encephalopathy), CJD
CC   (Creutzfeldt-Jakob disease), kuru, GSS (Gerstmann-Straussler-Scheinker
CC   disease) and FFI (fatal familial insomnia).
XX
SQ   Sequence   142 AA;


  Query Match             100.0%;  Score 72;  DB 18;  Length 142;
  Best Local Similarity   100.0%;  Pred. No. 8e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    125 citqyeresqayy 137


RESULT   3
AAB07318
ID   AAB07318 standard; protein; 208 AA.
XX
AC   AAB07318;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Human prion protein sequence.
XX
KW   Human; prion protein; transmissible spongiform encephalopathy;
KW   bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Region          29..69
FT                   /note= "Repeat region consisting of tandem repeats
FT                   of repeat unit: PHGGGWGQ (AAB07319)"
FT   Disulfide-bond  157..192
FT   Modified-site   208
FT                   /note= "C-terminal phospho-inositol glycolipid
FT                   membrane anchor (-GPI)"
XX
PN   WO200029850-A1.
XX
PD   25-MAY-2000.
XX
PF   27-OCT-1999;   99WO-FI00897.
XX
PR   17-NOV-1998;   98FI-0002481.
XX
PA   (WALL-) WALLAC OY.
```

```
PA   (BBSR-) BBSRC OFFICE.
XX
PI   Hope J,  Barnard GJR,  Birkett CR;
XX
DR   WPI; 2000-387880/33.
XX
PT   Novel immunoassay for prion protein, used for the determination of
PT   transmissible spongiform encephalopathies in bovines  -
XX
PS   Disclosure; Page 43-44; 50pp; English.
XX
CC   The present sequence is the human prion protein (PrP) sequence.
CC   Conversion of the normal cellular form of PrP into an aggregated,
CC   insoluble isoform is implicated in the pathogenesis of Transmissible
CC   Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
CC   Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease
CC   (CJD) and Gerstmann-Straussler-Sheinker syndrome (GSS). The concentration
CC   of this protein in body fluid or tissue samples may be measured by an
CC   assay of the present invention, in which a PrP epitope is captured by an
CC   antibody, which is then detected. The presence of PrP indicates TSE. PrP
CC   epitopes (AAB07320-B07326) are derived from the protease resistant core
CC   of PrP that is occluded when the PrP is in an aggregated state.
XX
SQ   Sequence   208 AA;


  Query Match             100.0%;  Score 72;  DB 21;  Length 208;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     192 citqyeresqayy 204


RESULT   4
AAB07329
ID   AAB07329 standard; protein; 208 AA.
XX
AC   AAB07329;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Human prion protein sequence.
XX
KW   Human; prion protein; transmissible spongiform encephalopathy;
KW   bovine spongiform encephalopathy; TSE diagnosis; PrP.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Region          29..69
FT                   /note= "Repeat region consisting of tandem repeats
FT                   of repeat unit: PHGGGWGQ (AAB07319)"
FT   Disulfide-bond  157..192
FT   Modified-site   208
FT                   /note= "C-terminal phospho-inositol glycolipid
FT                   membrane anchor (-GPI)"
XX
PN   WO200029849-A1.
XX
PD   25-MAY-2000.
XX
PF   27-OCT-1999;   99WO-FI00896.
XX
PR   17-NOV-1998;   98FI-0002480.
XX
PA   (WALL-) WALLAC OY.
PA   (BBSR-) BBSRC OFFICE.
XX
PI   Hope J,  Barnard GJR,  Birkett CR;
XX
DR   WPI; 2000-399778/34.
XX
PT   New immunoassay for prion protein, used for determination of
PT   transmissible spongiform encephalopathies in mammals, comprises
PT   specific capture antibody  -
XX
PS   Disclosure; Page 43-44; 50pp; English.
XX
CC   The present sequence is the human prion protein (PrP) sequence.
CC   Conversion of the normal cellular form of PrP into an aggregated,
CC   insoluble isoform is implicated in the pathogenesis of Transmissible
CC   Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
CC   Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease
CC   (CJD) and Gerstmann-Straussler-Sheinker syndrome (GSS). The concentration
CC   of this protein in body fluid or tissue samples may be measured by an
CC   assay of the present invention, in which a PrP epitope is captured by an
CC   antibody, which is then detected. The presence of PrP indicates TSE. PrP
CC   epitopes (AAB07320-B07326) are derived from the protease resistant core
CC   of PrP that is occluded when the PrP is in an aggregated state.
XX
SQ   Sequence   208 AA;


  Query Match             100.0%;  Score 72;  DB 21;  Length 208;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     192 citqyeresqayy 204


RESULT   5
AAR86715
ID   AAR86715 standard; protein; 253 AA.
XX
AC   AAR86715;
XX
DT   15-OCT-1996  (first entry)
XX
DE   Human prion protein, HuPrP.
XX
KW   Chimeric gene; chimeric prion; transgenic animal; diagnosis;
KW   spongiform encephalopathy; PrP; central nervous system; CNS;
KW   Creutzfeld-Jakob disease; CJD; BSE.
XX
OS   Homo sapiens.
XX
PN   WO9531466-A1.
XX
PD   23-NOV-1995.
XX
PF   10-APR-1995;   95WO-US04426.
XX
PR   13-MAY-1994;   94US-0242188.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Prusiner SB,  Scott MR,  Telling G;
XX
DR   WPI; 1996-010868/01.
XX
PT   Chimeric prion protein gene - for formation of a transgenic animal
PT   susceptible to prion infection by prion(s) normally specific for a
PT   different species
XX
PS   Disclosure; Page 41-42; 65pp; English.
XX
CC   Pathogenic prions in a sample can be detected by injecting the
CC   sample to be tested into a transgenic mouse.  The mouse genome
CC   includes a chimeric PrP gene in which the gene includes a portion of
CC   a gene of the animal (e.g. human) in danger of infection from prions
CC   in the sample.  Preferred transgenic mice express a chimeric prion
CC   protein (PrP) in which a segment of the mouse PrP, MoPrP, is
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CC   replaced with the corresponding human PrP sequence.  The chimeric
CC   PrP, designated MHu2MPrP, differs from the MoPrP by 9 AA between
CC   residues 96 and 167.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 17;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 citqyeresqayy 226


RESULT   6
AAW69660
ID   AAW69660 standard; protein; 253 AA.
XX
AC   AAW69660;
XX
DT   19-OCT-1998  (first entry)
XX
DE   Human prion protein HuPrP.
XX
KW   Human; prion protein; PrP; transgenic animal; artificial gene;
KW   Creutzfeldt Jakob disease; CJD; neurodegenerative disease.
XX
OS   Homo sapiens.
XX
PN   US5792901-A.
XX
PD   11-AUG-1998.
XX
PF   30-JUN-1996;   96US-0692892.
XX
PR   30-JUL-1996;   96US-0692892.
PR   13-MAY-1994;   94US-0242188.
PR   31-JUL-1995;   95US-0509261.
PR   31-AUG-1995;   95US-0521992.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Prusiner SB,  Scott MR,  Telling GC;
XX
DR   WPI; 1998-456207/39.
XX
PT   Transgenic mouse with altered PrP gene - for detecting
PT   disease-causing prions
XX
PS   Example 8; Fig 3; 37pp; English.
XX
CC   A transgenic mouse has been developed which comprises a genome in which
CC   both alleles of an endogenous PrP (prion protein) gene of the mouse are
CC   ablated, the genome containing operatively inserted all exogenous
CC   non-mouse PrP gene. The mouse is susceptible to infection with prions
CC   which generally only infect a genetically diverse mammal due to the
CC   presence of the exogenous PrP gene and ablated endogenous PrP gene. It
CC   exhibits symptoms of prion disease within 200 days or less after
CC   inoculation with prions which generally only infect a genetically
CC   diverse mammal. Also described in the present invention are: (A) a
CC   method of producing the transgenic mouse; and (B) determining the
CC   presence of infectious prions in a sample obtained from a bovine. The
CC   transgenic mouse is used to detect for Creutzfeldt Jakob disease (CJD)
CC   a fatal neurodegenerative disease of humans caused by prions. The
CC   present sequence represents human prion protein (HuPrP), used in an
CC   example from the present invention.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 19;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 citqyeresqayy 226


RESULT   7
AAY07994
ID   AAY07994 standard; protein; 253 AA.
XX
AC   AAY07994;
XX
DT   08-JUL-1999  (first entry)
XX
DE   Human prion protein.
XX
KW   Prion protein; PrP; human; polyclonal antiserum; immunoassay;
KW   detection; bovine; murine.
XX
OS   Homo sapiens.
XX
PN   DE19745443-A1.
XX
PD   22-APR-1999.
XX
PF   15-OCT-1997;   97DE-1045443.
XX
PR   15-OCT-1997;   97DE-1045443.
XX
PA   (HERZ/) HERZOG-MESMER A.
XX
PI   Kiselev OI,  Mesmer AH,  Scheller A;
XX
DR   WPI; 1999-255775/22.
XX
PT   Diagnostic polyclonal antiserum specific for prion protein -
PT   obtained by immunisation with metal-containing polypeptide
XX
PS   Claim 3; Fig 1; 12pp; German.
XX
CC   This invention describes a novel process for producing a polyclonal
CC   antiserum against a human or animal prion protein (PrP) which can be
CC   used in immunoassays for detecting PrP's. The method comprises (a)
CC   selecting a polypeptide that has a length of at least 10 amino acids and
CC   has an amino acid sequence at least 70% homologous to that of human,
CC   bovine or murine PrP in a region of at least 10 consecutive amino acids
CC   (b) binding a metal to the polypeptide by reaction with a metal compound
CC   and (c) injecting the metal-containing polypeptide into a host animal,
CC   optionally together with adjuvants, to induce production of a polyclonal
CC   antiserum.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 20;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 citqyeresqayy 226


RESULT   8
AAW85901
ID   AAW85901 standard; peptide; 253 AA.
XX
AC   AAW85901;
XX
DT   12-FEB-1999  (first entry)
XX
```

```
DE   Human prion protein (PrP) sequence.
XX
KW   PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
KW   Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
KW   cosmetic; therapeutic; human.
XX
OS   Homo sapiens.
XX
PN   US5846533-A.
XX
PD   08-DEC-1998.
XX
PF   13-SEP-1996;   96US-0713939.
XX
PR   13-SEP-1996;   96US-0713939.
PR   14-SEP-1995;   95US-0528104.
XX
PA   (SCRI ) SCRIPPS RES INST.
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Burton DR,  Prusiner SB,  Williamson RA;
XX
DR   WPI; 1999-058996/05.
XX
PT   Antibody specific for scrapie isoform of prion protein - useful for
PT   diagnosis and therapy
XX
PS   Disclosure; Columns 41-42; 58pp; English.
XX
CC   This represents a human prion protein (PrP) sequence. The invention
CC   relates to an antibody that is capable of binding to native PrP(Sc), the
CC   scrapie isoform of PrP. The antibody is produced by a method that
CC   comprises synthesising a library of antibodies on phages, contacting the
CC   phages with a composition containing PrP proteins, isolating phages that
CC   bind to native PrP(Sc) in situ, obtaining an antibody from the phages,
CC   and optionally analysing the phages to determined a nucleic acid sequence
CC   encoding an amino acid sequence to which the native PrP(Sc) binds. The
CC   antibody is used to detect disease-associated PrP, especially in
CC   Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They
CC   can also be used to neutralise the infectivity of PrP(Sc). Assays using
CC   the antibodies can be used to screen for disease-associated PrP in
CC   pharmaceutical products, foods and cosmetics or for therapeutic purposes.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 20;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 citqyeresqayy 226


RESULT   9
AAB15035
ID   AAB15035 standard; Protein; 253 AA.
XX
AC   AAB15035;
XX
DT   18-DEC-2000  (first entry)
XX
DE   Human prion protein.
XX
KW   Prion; PrP; guanidine thiocyanate; gdnSCN; TSE; BSE;
KW   transmissible spongiform encephalopathy;
KW   bovine spongiform encephalopathy; sheep; cattle; human.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1..22
FT                   /note= "N terminal signal peptide"
FT   Protein         23..231
FT                   /label= "Mature protein"
FT   Cleavage-site   60..89
FT                   /note= "Protease sensitive site""
FT   Peptide         232..253
FT                   /note= "C terminal signal peptide"
XX
PN   WO200048003-A1.
XX
PD   17-AUG-2000.
XX
PF   09-FEB-2000; 2000WO-NL00079.
XX
PR   11-FEB-1999;   99EP-0200391.
XX
PA   (DIEN-) STICHTING DIENST LANDBOUWKUNDIG ONDERZOE.
XX
PI   Garssen GJ,  Jacobs JG,  Langeveld JPM,  Smits MA,  Van Keulen LJM;
PI   Schreuder BEC,  Bossers A;
XX
DR   WPI; 2000-506099/45.
XX
PT   Use of guanidine thiocyanate for reducing risk of false-positive
PT   results in testing mammalian sample for aberrant prion protein, useful
PT   for detection of transmissible spongiform encephalopathies -
XX
PS   Disclosure; Fig 1; 49pp; English.
XX
CC   The present invention relates to a method for reducing the risk of
CC   scoring a false positive test result in testing a sample for aberrant
CC   prion protein. The method involves the use of guanidine thiocyanate
CC   (gdnSCN) or its functional equivalent. This test is highly useful for
CC   testing for transmissible spongiform encephalopathies (TSEs) such as
CC   BSE (bovine spongiform encephalopathy). The method allows a faster,
CC   simpler and more reliable method for monitoring cattle and sheep for
CC   the presence of aberrant prion protein before it reaches the human
CC   and animal food chain. The present sequence is the human prion protein.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 21;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 citqyeresqayy 226


RESULT  10
AAB06272
ID   AAB06272 standard; Protein; 253 AA.
XX
AC   AAB06272;
XX
DT   16-OCT-2000  (first entry)
XX
DE   Human PrP prion protein.
XX
KW   Human; PrP; prion; Creutzfeldt-Jakob disease; CJD; neuroprotective;
KW   vaccine; beta-form PrP; Kuru; transmissible mink encephalopathy;
KW   bovine spongiform encephalopathy; BSE.
XX
OS   Homo sapiens.
XX
PN   WO200026238-A2.
XX
PD   11-MAY-2000.
XX
PF   02-NOV-1999;   99WO-GB03617.
XX
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PR 04-NOV-1998; 98GB-0024091.
PR 18-MAR-1999; 99GB-0006217.
XX
PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI Collinge J, Clarke AR, Jackson GS;
XX
DR WPI; 2000-365570/31.
DR N-PSDB; AAA57174.
XX
PT Novel method of producing beta-form prion proteins, related antibodies,
PT and binding agents useful in treatment and diagnosis of prion diseases
PT -
XX
PS Disclosure; Fig 1; 115pp; English.
XX
CC The present sequence is the human prion protein encoded by the PrP
CC gene. A beta-form of the protein has been produced which has more
CC beta-sheet than alpha-helix structure, can exist as a monomer and
CC can retain solubility in an aqueous solution in the absence of a
CC denaturant. The beta-form PrP, a beta-form binding agent or aggregate can
CC be used in the preparation or manufacture of a composition for the
CC prevention, treatment and/or diagnosis of a prion disease, e.g. Kuru,
CC Creutzfeldt-Jakob disease (CJD), transmissible mink encephalopathy,
CC chronic wasting disease of mule deer and elk, and bovine spongiform
CC encephalopathy (BSE). By measuring the levels of beta-form in a sample,
CC agents capable of preventing, reducing and/or reversing the conversion of
CC a PrP to a beta-form can be identified. The beta-form of the PrP or a
CC non-fibrillar aggregate can be used as a vaccine against a prion disease.
CC The beta-form can also be used to diagnose a predisposition to or the
CC presence of a prion disease by monitoring aggregation.
XX
SQ Sequence 253 AA;

Query Match 100.0%; Score 72; DB 21; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||||||||||
Db 214 citqyeresqayy 226

RESULT 11
AAY81485
ID AAY81485 standard; Protein; 253 AA.
XX
AC AAY81485;
XX
DT 03-JUL-2000 (first entry)
XX
DE Human prion protein.
XX
KW Prion protein; human; antibody; monoclonal; prion-related disease;
KW Creutzfeldt-Jakob disease; CJD; diagnosis.
XX
OS Homo sapiens.
XX
PN JP2000060551-A.
XX
PD 29-FEB-2000.
XX
PF 13-AUG-1998; 98JP-0241145.
XX
PR 13-AUG-1998; 98JP-0241145.
XX
PA (SEGK) SEIKAGAKU KOGYO CO LTD.
XX
DR WPI; 2000-249674/22.
XX
PT Anti-prion antibody specific for a particular amino acid sequence -
PT useful in diagnosis and research of prion related diseases
XX
PS Disclosure; Page 8; 9pp; Japanese.
XX
CC The invention relates to an anti-prion protein antibody, preferably a
CC mouse-derived monoclonal antibody, which binds residues 96-114 of human
CC prion protein (peptide sequence given in AAY81484). The anti-prion
CC antibody is useful as a research tool and for the diagnosis of
CC prion-related diseases such as Creutzfeldt-Jakob disease (CJD). The
CC antibody is highly specific for human prion protein, and is relatively
CC inexpensive to manufacture. This sequence represents full-length human
CC prion protein.
XX
SQ Sequence 253 AA;

Query Match 100.0%; Score 72; DB 21; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYERESQAYY 13
||||||||||||||
Db 214 citqyeresqayy 226

RESULT 12
AAB72338
ID AAB72338 standard; Peptide; 253 AA.
XX
AC AAB72338;
XX
DT 17-MAY-2001 (first entry)
XX
DE Human prion protein cellular form (PrPc) amino acid sequence.
XX
KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW prion disease; spongiform encephalopathies; Scrapie; human;
KW bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Region 176..221
FT /note= "Stable region, specifically claimed in claim 3"
XX
PN WO200107479-A2.
XX
PD 01-FEB-2001.
XX
PF 25-JUL-2000; 2000WO-GB02873.
XX
PR 27-JUL-1999; 99GB-0017491.
PR 30-JUL-1999; 99GB-0017878.
XX
PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;
XX
DR WPI; 2001-168538/17.
XX
PT New prion peptide for treating, preventing and/or diagnosing prion
PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT cows and Creutzfeldt-Jakob disease in humans -
XX
PS Claim 3; Fig 5; 69pp; English.
XX
CC This invention relates to a peptide fragment of a cellular form of prion
CC protein PrPc located around a disulphide bond found in PrPc. The stable
CC structure is a specific marker of PrPc but not soluble prion protein
CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC or binding agent that binds PrPc. The antibody is used to detect or
CC remove PrPc, and may be used in preventative medicine. The antibody may
CC be used in the prevention, treatment or diagnosis of a prion disease,
CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine

```
CC   spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC   (CJD) in humans. The present sequence represents the cellular form of
CC   human prion protein, the stable region of the protein may be used in the
CC   production of anti-PrPc antibodies.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 22;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 citqyeresqayy 226


RESULT  13
AAB72339
ID   AAB72339 standard; Peptide; 253 AA.
XX
AC   AAB72339;
XX
DT   17-MAY-2001  (first entry)
XX
DE   Chimpanzee prion protein cellular form (PrPc) amino acid sequence.
XX
KW   Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW   prion disease; spongiform encephalopathies; Scrapie; chimpanzee;
KW   bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS   Pan paniscus.
XX
FH   Key             Location/Qualifiers
FT   Region          176..221
FT                   /note= "Stable region, specifically claimed in claim 3"
XX
PN   WO200107479-A2.
XX
PD   01-FEB-2001.
XX
PF   25-JUL-2000; 2000WO-GB02873.
XX
PR   27-JUL-1999;   99GB-0017491.
PR   30-JUL-1999;   99GB-0017878.
XX
PA   (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI   Collinge J,  Clarke AR,  Waltho JP,  Jackson GS,  Hosszu LLP;
XX
DR   WPI; 2001-168538/17.
XX
PT   New prion peptide for treating, preventing and/or diagnosing prion
PT   diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT   cows and Creutzfeldt-Jakob disease in humans  -
XX
PS   Claim 3; Fig 5; 69pp; English.
XX
CC   This invention relates to a peptide fragment of a cellular form of prion
CC   protein PrPc located around a disulphide bond found in PrPc. The stable
CC   structure is a specific marker of PrPc but not soluble prion protein
CC   (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC   or binding agent that binds PrPc. The antibody is used to detect or
CC   remove PrPc, and may be used in preventative medicine. The antibody may
CC   be used in the prevention, treatment or diagnosis of a prion disease,
CC   e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC   spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC   (CJD) in humans. The present sequence represents the cellular form of
CC   chimpanzee prion protein, the stable region of the protein may be used in
CC   the production of anti-PrPc antibodies.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 22;  Length 253;
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Qy      1 CITQYERESQAYY 13
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Db    214 citqyeresqayy 226


RESULT  14
AAB72340
ID   AAB72340 standard; Peptide; 253 AA.
XX
AC   AAB72340;
XX
DT   17-MAY-2001  (first entry)
XX
DE   Orangutan prion protein cellular form (PrPc) amino acid sequence.
XX
KW   Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW   prion disease; spongiform encephalopathies; Scrapie; orangutan;
KW   bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS   Pongo pygmaeus.
XX
FH   Key             Location/Qualifiers
FT   Region          176..221
FT                   /note= "Stable region, specifically claimed in claim 3"
XX
PN   WO200107479-A2.
XX
PD   01-FEB-2001.
XX
PF   25-JUL-2000; 2000WO-GB02873.
XX
PR   27-JUL-1999;   99GB-0017491.
PR   30-JUL-1999;   99GB-0017878.
XX
PA   (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI   Collinge J,  Clarke AR,  Waltho JP,  Jackson GS,  Hosszu LLP;
XX
DR   WPI; 2001-168538/17.
XX
PT   New prion peptide for treating, preventing and/or diagnosing prion
PT   diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT   cows and Creutzfeldt-Jakob disease in humans  -
XX
PS   Claim 3; Fig 5; 69pp; English.
XX
CC   This invention relates to a peptide fragment of a cellular form of prion
CC   protein PrPc located around a disulphide bond found in PrPc. The stable
CC   structure is a specific marker of PrPc but not soluble prion protein
CC   (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC   or binding agent that binds PrPc. The antibody is used to detect or
CC   remove PrPc, and may be used in preventative medicine. The antibody may
CC   be used in the prevention, treatment or diagnosis of a prion disease,
CC   e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC   spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC   (CJD) in humans. The present sequence represents the cellular form of
CC   orangutan prion protein, the stable region of the protein may be used in
CC   the production of anti-PrPc antibodies.
XX
SQ   Sequence   253 AA;


  Query Match             100.0%;  Score 72;  DB 22;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
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```
Db    214 citqyeresqayy 226

RESULT  15
AAB72341
ID   AAB72341 standard; Peptide; 253 AA.
XX
AC   AAB72341;
XX
DT   17-MAY-2001  (first entry)
XX
DE   Gorilla prion protein cellular form (PrPc) amino acid sequence.
XX
KW   Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW   prion disease; spongiform encephalopathies; Scrapie; gorilla;
KW   bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS   Gorilla gorilla.
XX
FH   Key             Location/Qualifiers
FT   Region          176..221
FT                   /note= "Stable region, specifically claimed in claim 3"
XX
PN   WO200107479-A2.
XX
PD   01-FEB-2001.
XX
PF   25-JUL-2000; 2000WO-GB02873.
XX
PR   27-JUL-1999;   99GB-0017491.
PR   30-JUL-1999;   99GB-0017878.
XX
PA   (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI   Collinge J,  Clarke AR,  Waltho JP,  Jackson GS,  Hosszu LLP;
XX
DR   WPI; 2001-168538/17.
XX
PT   New prion peptide for treating, preventing and/or diagnosing prion
PT   diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT   cows and Creutzfeldt-Jakob disease in humans  -
XX
PS   Claim 3; Fig 5; 69pp; English.
XX
CC   This invention relates to a peptide fragment of a cellular form of prion
CC   protein PrPc located around a disulphide bond found in PrPc. The stable
CC   structure is a specific marker of PrPc but not soluble prion protein
CC   (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC   or binding agent that binds PrPc. The antibody is used to detect or
CC   remove PrPc, and may be used in preventative medicine. The antibody may
CC   be used in the prevention, treatment or diagnosis of a prion disease,
CC   e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC   spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC   (CJD) in humans. The present sequence represents the cellular form of
CC   gorilla prion protein, the stable region of the protein may be used in
CC   the production of anti-PrPc antibodies.
XX
SQ   Sequence   253 AA;


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Qy      1 CITQYERESQAYY 13
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Db    214 citqyeresqayy 226


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Job time: 309 sec
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GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:49:12 ; Search time 20.34 Seconds
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Title: US-09-576-724-1
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Total number of hits satisfying chosen parameters: 197339

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Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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1	72	100.0	22	1	US-08-244-701B-37	Sequence 37, Appl
2	72	100.0	142	1	US-08-556-823-10	Sequence 10, Appl
3	72	100.0	253	1	US-08-242-188-2	Sequence 2, Appli
4	72	100.0	253	1	US-08-509-261A-2	Sequence 2, Appli
5	72	100.0	253	1	US-08-660-626-8	Sequence 8, Appli
6	72	100.0	253	1	US-08-692-892-2	Sequence 2, Appli
7	72	100.0	253	2	US-08-713-939A-2	Sequence 2, Appli
8	72	100.0	253	2	US-08-868-162A-22	Sequence 22, Appl
9	72	100.0	253	4	US-09-031-168-8	Sequence 8, Appli
10	72	100.0	253	4	US-09-128-450-20	Sequence 20, Appl
11	69	95.8	15	1	US-08-244-701B-48	Sequence 48, Appl
12	69	95.8	22	1	US-08-244-701B-33	Sequence 33, Appl
13	69	95.8	22	1	US-08-244-701B-35	Sequence 35, Appl
14	69	95.8	255	1	US-08-242-188-4	Sequence 4, Appli
15	69	95.8	255	1	US-08-509-261A-4	Sequence 4, Appli
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20	69	95.8	255	4	US-09-031-168-10	Sequence 10, Appl
21	69	95.8	256	4	US-09-128-450-22	Sequence 22, Appl
22	69	95.8	264	4	US-09-128-450-21	Sequence 21, Appl
23	65	90.3	254	1	US-08-242-188-1	Sequence 1, Appli
24	65	90.3	254	1	US-08-509-261A-1	Sequence 1, Appli
25	65	90.3	254	1	US-08-660-626-7	Sequence 7, Appli
26	65	90.3	254	1	US-08-692-892-1	Sequence 1, Appli
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32	65	90.3	263	1	US-08-242-188-3	Sequence 3, Appli
33	65	90.3	263	1	US-08-509-261A-3	Sequence 3, Appli
34	65	90.3	263	1	US-08-660-626-9	Sequence 9, Appli
35	65	90.3	263	1	US-08-692-892-3	Sequence 3, Appli
36	65	90.3	263	2	US-08-713-939A-3	Sequence 3, Appli
37	65	90.3	263	2	US-08-868-162A-23	Sequence 23, Appl
38	65	90.3	263	4	US-09-031-168-9	Sequence 9, Appli
39	61	84.7	142	1	US-08-556-823-2	Sequence 2, Appli
40	61	84.7	254	4	US-09-128-450-26	Sequence 26, Appl
41	55	76.4	24	1	US-08-244-701B-62	Sequence 62, Appl
42	54	75.0	208	4	US-09-128-450-18	Sequence 18, Appl
43	43	59.7	528	3	US-08-688-988-6	Sequence 6, Appli
44	42	58.3	437	3	US-08-688-988-8	Sequence 8, Appli
45	42	58.3	524	3	US-08-688-988-34	Sequence 34, Appl

ALIGNMENTS

RESULT 1
US-08-244-701B-37
; Sequence 37, Application US/08244701B
; Patent No. 5773572
; GENERAL INFORMATION:
; APPLICANT: Fishleigh, Robert V.
; APPLICANT: Robson, Barry
; APPLICANT: Mee, Roger P.
; TITLE OF INVENTION: Fragments of Prion Proteins
; NUMBER OF SEQUENCES: 67
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/244,701B
; FILING DATE: 02-JUN-1994
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Fanucci, Allan A.
; REGISTRATION NUMBER: 30,256
; REFERENCE/DOCKET NUMBER: 8080-007
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 37:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 22 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 1
; OTHER INFORMATION: /label= X
; OTHER INFORMATION: /note= "X may be absent or present independently
; OTHER INFORMATION: of Y and denotes one or more amino acid(s)"
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 22

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;      OTHER INFORMATION:  /label= Y
;      OTHER INFORMATION:  /note= "Y may be absent or present independently
;      OTHER INFORMATION:  of X and denotes one or more amino acid(s)"
US-08-244-701B-37


  Query Match             100.0%;  Score 72;  DB 1;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 4.2e-07;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db       3 CITQYERESQAYY 15


RESULT   2
US-08-556-823-10
; Sequence 10, Application US/08556823
; Patent No. 5750361
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Kiyotoshi Kaneko
;    APPLICANT:  Fred E. Cohen
;    TITLE OF INVENTION:  Formation and use of prion protein
;    TITLE OF INVENTION:
;    NUMBER OF SEQUENCES:  10
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/556,823
;      FILING DATE:
;      CLASSIFICATION:  530
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  10:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  142 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-556-823-10


  Query Match             100.0%;  Score 72;  DB 1;  Length 142;
  Best Local Similarity   100.0%;  Pred. No. 3.6e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     125 CITQYERESQAYY 137


RESULT   3
US-08-242-188-2
; Sequence 2, Application US/08242188
; Patent No. 5565186
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  METHOD OF DETECTING PRIONS IN A SAMPLE
;    TITLE OF INVENTION:  AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bosicevic
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/242,188
;      FILING DATE:  13-MAY-1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bosicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/014001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 854-5277
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  HUMAN PRION PROTEIN, HuPrP
US-08-242-188-2


  Query Match             100.0%;  Score 72;  DB 1;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   4
US-08-509-261A-2
; Sequence 2, Application US/08509261A
; Patent No. 5763244
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  Method of Detecting Prions
;    TITLE OF INVENTION:  in a Sample and Transgenic Animal Used fore
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
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;      APPLICATION NUMBER:  US/08/509,261A
;      FILING DATE:  31-JUL-1995
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-030001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-509-261A-2


  Query Match           100.0%;  Score 72;  DB 1;  Length 253;
  Best Local Similarity  100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 CITQYERESQAYY 226


RESULT   5
US-08-660-626-8
; Sequence 8, Application US/08660626
; Patent No. 5789655
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Glenn C. Telling
;    APPLICANT:  Fred E. Cohen
;    APPLICANT:  Michael R. Scott
;    TITLE OF INVENTION:  TRANSGENIC ANIMALS EXPRESSING
;    TITLE OF INVENTION:  EPITOPE-TAGGED PROTEINS
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/660,626
;      FILING DATE:
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  HUMAN PRION PROTEIN, HuPrP
US-08-660-626-8


  Query Match           100.0%;  Score 72;  DB 1;  Length 253;
  Best Local Similarity  100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 CITQYERESQAYY 226


RESULT   6
US-08-692-892-2
; Sequence 2, Application US/08692892
; Patent No. 5792901
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  DETECTING PRIONS IN A SAMPLE AND
;    TITLE OF INVENTION:  PRION PREPARATION AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bozicevic
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/692,892
;      FILING DATE:  30-JULY-1996
;      CLASSIFICATION:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/056001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  HUMAN PRION PROTEIN, HuPrP
US-08-692-892-2


  Query Match           100.0%;  Score 72;  DB 1;  Length 253;
  Best Local Similarity  100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 CITQYERESQAYY 226


RESULT   7
US-08-713-939A-2
; Sequence 2, Application US/08713939A
```

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; Patent No. 5846533
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Williamson, R. Anthony
;    APPLICANT:  Burton, Dennis R.
;    TITLE OF INVENTION:  ANTIBODIES SPECIFIC FOR NATIVE PrP
;    NUMBER OF SEQUENCES:  86
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson P.C.
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  U.S.A.
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/713,939A
;      FILING DATE:  13-SEP-1996
;      CLASSIFICATION:  436
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/059001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  415-854-5277
;      TELEFAX:  415-854-0875
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-713-939A-2


  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   8
US-08-868-162A-22
; Sequence 22, Application US/08868162A
; Patent No. 5962669
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley
;    APPLICANT:  Cohen, Fred
;    APPLICANT:  James, Thomas
;    APPLICANT:  Kaneko, Kiyotoshi
;    TITLE OF INVENTION:  Prion Protein Modulator Factor
;    TITLE OF INVENTION:
;    NUMBER OF SEQUENCES:  24
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/868,162A
;      FILING DATE:  03-JUN-1997
;      CLASSIFICATION:  536
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-083001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  22:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  HUMAN PRION PROTEIN, HuPrP
US-08-868-162A-22


  Query Match             100.0%;  Score 72;  DB 2;  Length 253;
  Best Local Similarity   100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||||||||||
Db     214 CITQYERESQAYY 226


RESULT   9
US-09-031-168-8
; Sequence 8, Application US/09031168
; Patent No. 6150583
;  GENERAL INFORMATION:
;    APPLICANT:  Stanley B. Prusiner
;    APPLICANT:  Glenn C. Telling
;    APPLICANT:  Fred E. Cohen
;    APPLICANT:  Michael R. Scott
;    TITLE OF INVENTION:  TRANSGENIC ANIMALS EXPRESSING
;    TITLE OF INVENTION:  EPITOPE-TAGGED PROTEINS
;    NUMBER OF SEQUENCES:  13
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Fish & Richardson
;      STREET:  2200 Sand Hill Road, Suite 100
;      CITY:  Menlo Park
;      STATE:  California
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  AscIII
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/09/031,168
;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/660,626
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Valeta Gregg
```

```
;      REGISTRATION NUMBER:  35,127
;      REFERENCE/DOCKET NUMBER:  07532/003001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 322-5070
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  8:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  253 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  HUMAN PRION PROTEIN, HuPrP
US-09-031-168-8


  Query Match           100.0%;  Score 72;  DB 4;  Length 253;
  Best Local Similarity  100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 CITQYERESQAYY 226


RESULT  10
US-09-128-450-20
; Sequence 20, Application US/09128450
; Patent No. 6211149
; GENERAL INFORMATION:
;  APPLICANT: Chesebro, Bruce W
;  APPLICANT:  Caughey, Byron W
;  APPLICANT:  Chabry, Joelle
;  APPLICANT:  Priola, Susette
;  TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
;  TITLE OF INVENTION:  Protein
;  FILE REFERENCE: 50121
;  CURRENT APPLICATION NUMBER: US/09/128,450
;  CURRENT FILING DATE:  1998-08-03
;  NUMBER OF SEQ ID NOS: 29
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 20
;   LENGTH: 253
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-128-450-20


  Query Match           100.0%;  Score 72;  DB 4;  Length 253;
  Best Local Similarity  100.0%;  Pred. No. 7.1e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||||||||||
Db    214 CITQYERESQAYY 226


RESULT  11
US-08-244-701B-48
; Sequence 48, Application US/08244701B
; Patent No. 5773572
;  GENERAL INFORMATION:
;    APPLICANT:  Fishleigh, Robert V.
;    APPLICANT:  Robson, Barry
;    APPLICANT:  Mee, Roger P.
;    TITLE OF INVENTION:  Fragments of Prion Proteins
;    NUMBER OF SEQUENCES:  67
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/244,701B
;      FILING DATE:  02-JUN-1994
;      CLASSIFICATION:  436
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fanucci, Allan A.
;      REGISTRATION NUMBER:  30,256
;      REFERENCE/DOCKET NUMBER:  8080-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  48:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  15 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
US-08-244-701B-48


  Query Match           95.8%;  Score 69;  DB 1;  Length 15;
  Best Local Similarity  92.3%;  Pred. No. 9.7e-07;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYERESQAYY 13
          |||||:|||||||
Db      1 CITQYQRESQAYY 13


RESULT  12
US-08-244-701B-33
; Sequence 33, Application US/08244701B
; Patent No. 5773572
;  GENERAL INFORMATION:
;    APPLICANT:  Fishleigh, Robert V.
;    APPLICANT:  Robson, Barry
;    APPLICANT:  Mee, Roger P.
;    TITLE OF INVENTION:  Fragments of Prion Proteins
;    NUMBER OF SEQUENCES:  67
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/244,701B
;      FILING DATE:  02-JUN-1994
;      CLASSIFICATION:  436
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fanucci, Allan A.
;      REGISTRATION NUMBER:  30,256
;      REFERENCE/DOCKET NUMBER:  8080-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  33:
```

```
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  22 amino acids
;       TYPE:  amino acid
;       STRANDEDNESS:  single
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  peptide
;     FEATURE:
;       NAME/KEY:  Modified-site
;       LOCATION:  1
;       OTHER INFORMATION:  /label= X
;       OTHER INFORMATION:  /note= "X may be absent or present independently
;       OTHER INFORMATION:  of Y and denotes one or more amino acid(s)"
;     FEATURE:
;       NAME/KEY:  Modified-site
;       LOCATION:  22
;       OTHER INFORMATION:  /label= Y
;       OTHER INFORMATION:  /note= "Y may be absent or present independently
;       OTHER INFORMATION:  of X and denotes one or more amino acid(s)"
US-08-244-701B-33


  Query Match             95.8%;  Score 69;  DB 1;  Length 22;
  Best Local Similarity   92.3%;  Pred. No. 1.5e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||:|||||||
Db       3 CITQYQRESQAYY 15


RESULT  13
US-08-244-701B-35
; Sequence 35, Application US/08244701B
; Patent No. 5773572
;  GENERAL INFORMATION:
;    APPLICANT:  Fishleigh, Robert V.
;    APPLICANT:  Robson, Barry
;    APPLICANT:  Mee, Roger P.
;    TITLE OF INVENTION:  Fragments of Prion Proteins
;    NUMBER OF SEQUENCES:  67
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Pennie & Edmonds
;      STREET:  1155 Avenue of the Americas
;      CITY:  New York
;      STATE:  New York
;      COUNTRY:  U.S.A.
;      ZIP:  10036
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/244,701B
;      FILING DATE:  02-JUN-1994
;      CLASSIFICATION:  436
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Fanucci, Allan A.
;      REGISTRATION NUMBER:  30,256
;      REFERENCE/DOCKET NUMBER:  8080-007
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (212) 790-9090
;      TELEFAX:  (212) 869-8864/9741
;      TELEX:  66141 PENNIE
;  INFORMATION FOR SEQ ID NO:  35:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  22 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FEATURE:
;      NAME/KEY:  Modified-site
;      LOCATION:  1
;      OTHER INFORMATION:  /label= X
;      OTHER INFORMATION:  /note= "X may be absent or present independently
;      OTHER INFORMATION:  of Y and denotes one or more amino acid(s)"
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;      NAME/KEY:  Modified-site
;      LOCATION:  22
;      OTHER INFORMATION:  /label= Y
;      OTHER INFORMATION:  /note= "Y may be absent or present independently
;      OTHER INFORMATION:  of X and denotes one or more amino acid(s)"
US-08-244-701B-35


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  Best Local Similarity   92.3%;  Pred. No. 1.5e-06;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||:|||||||
Db       3 CITQYQRESQAYY 15


RESULT  14
US-08-242-188-4
; Sequence 4, Application US/08242188
; Patent No. 5565186
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  METHOD OF DETECTING PRIONS IN A SAMPLE
;    TITLE OF INVENTION:  AND TRANSGENIC ANIMAL USED FOR SAME
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Karl Bosicevic
;      STREET:  2200 Sand Hill Road
;      CITY:  Menlo Park
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94025
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  PatentIn Release #1.0, Version #1.25
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/242,188
;      FILING DATE:  13-MAY-1994
;      CLASSIFICATION:  435
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bosicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  06510/014001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (415) 854-5277
;      TELEFAX:  (415) 854-0875
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    ORIGINAL SOURCE:
;      ORGANISM:  SHEEP PRION PROTEIN, ShPrP
US-08-242-188-4


  Query Match             95.8%;  Score 69;  DB 1;  Length 255;
  Best Local Similarity   92.3%;  Pred. No. 2.5e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
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Db    216 CITQYQRESQAYY 228


RESULT  15
US-08-509-261A-4
; Sequence 4, Application US/08509261A
; Patent No. 5763244
;  GENERAL INFORMATION:
;    APPLICANT:  Prusiner, Stanley B.
;    APPLICANT:  Scott, Michael R.
;    APPLICANT:  Telling, Glenn
;    TITLE OF INVENTION:  Method of Detecting Prions
;    TITLE OF INVENTION:  in a Sample and Transgenic Animal Used fore
;    NUMBER OF SEQUENCES:  4
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  Bozicevic & Reed, LLP
;      STREET:  285 Hamilton Avenue, Suite 200
;      CITY:  Palo Alto
;      STATE:  CA
;      COUNTRY:  USA
;      ZIP:  94301
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Diskette
;      COMPUTER:  IBM Compatible
;      OPERATING SYSTEM:  DOS
;      SOFTWARE:  FastSEQ for Windows Version 2.0
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/509,261A
;      FILING DATE:  31-JUL-1995
;      CLASSIFICATION:  800
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:
;      FILING DATE:
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Bozicevic, Karl
;      REGISTRATION NUMBER:  28,807
;      REFERENCE/DOCKET NUMBER:  6510-030001
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  650-327-3400
;      TELEFAX:  650 327-3231
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  4:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  255 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
US-08-509-261A-4


  Query Match             95.8%;  Score 69;  DB 1;  Length 255;
  Best Local Similarity   92.3%;  Pred. No. 2.5e-05;
  Matches   12;  Conservative    1;  Mismatches    0;  Indels    0;  Gaps    0;

Qy       1 CITQYERESQAYY 13
           |||||:|||||||
Db    216 CITQYQRESQAYY 228


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Job time: 166 sec
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GenCore version 4.5

OM protein - protein search, using sw model

Run on: October 25, 2001, 08:51:31 ; Search time 32.8 Seconds
(without alignments)
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Title: US-09-576-724-2
Perfect score: 72
Sequence: 1 CITQYQRESQAYY 13

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Gapop 10.0 , Gapext 0.5

Searched: 412676 seqs, 60623988 residues

Total number of hits satisfying chosen parameters: 412676

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	72	100.0	15	14	AAR38048	Prion protein regi
2	72	100.0	17	22	AAB69083	Bovine prion prote
3	72	100.0	22	14	AAR38042	Bovine prion prote
4	72	100.0	22	14	AAR38044	Ovine prion protei
5	72	100.0	26	22	AAB69085	Prion protein pept
6	72	100.0	217	21	AAB07317	Cattle prion prote
7	72	100.0	217	21	AAB07328	Cattle prion prote
8	72	100.0	219	19	AAW70261	Bovine prion prote
9	72	100.0	219	20	AAW93571	Bovine rbPrP prote
10	72	100.0	255	17	AAR86717	Sheep prion protei
11	72	100.0	255	19	AAW69662	Sheep prion protei
12	72	100.0	255	20	AAW85903	Sheep prion prote
13	72	100.0	256	10	AAP93674	Sheep PrP gene i
14	72	100.0	256	22	AAB72362	Sheep prion protei
15	72	100.0	256	22	AAB72363	Antelope prion pro
16	72	100.0	256	22	AAB72365	Goat prion protei
17	72	100.0	256	22	AAB61771	Sheep prion protei
18	72	100.0	264	20	AAY07995	Bovine prion prote
19	72	100.0	264	22	AAB72361	Cow prion protein
20	72	100.0	264	22	AAB61769	Bovine prion prote
21	69	95.8	22	14	AAR38046	Human prion protei
22	69	95.8	142	18	AAW17686	Prion protein pept
23	69	95.8	208	21	AAB07318	Human prion protei
24	69	95.8	208	21	AAB07329	Human prion protei
25	69	95.8	253	17	AAR86715	Human prion protei
26	69	95.8	253	19	AAW69660	Human prion protei
27	69	95.8	253	20	AAY07994	Human prion protei
28	69	95.8	253	20	AAW85901	Human prion protei
29	69	95.8	253	21	AAB15035	Human prion protei
30	69	95.8	253	21	AAB06272	Human PrP prion pr
31	69	95.8	253	21	AAY81485	Human prion protei
32	69	95.8	253	22	AAB72338	Human prion protei
33	69	95.8	253	22	AAB72339	Chimpan ze prion p
34	69	95.8	253	22	AAB72340	Orangutan prion pr
35	69	95.8	253	22	AAB72341	Gorilla prion prot
36	69	95.8	253	22	AAB72345	Gibbon prion prote
37	69	95.8	253	22	AAB72354	Capuchin prion pro
38	69	95.8	253	22	AAB72356	Siamang prion prot
39	69	95.8	253	22	AAB61770	Human prion protei
40	69	95.8	264	22	AAB72364	Kudu prion protein
41	68	94.4	31	20	AAW92806	Mouse PrP protein
42	68	94.4	208	21	AAB07316	Mouse prion protei
43	68	94.4	208	21	AAB07327	Mouse prion protei
44	68	94.4	211	22	AAB30801	Amino acid sequenc
45	68	94.4	254	17	AAR86714	Mouse prion protei

ALIGNMENTS

RESULT 1
AAR38048
ID AAR38048 standard; protein; 15 AA.
XX
AC AAR38048;
XX
DT 14-OCT-1993 (first entry)
XX
DE Prion protein region F #2.
XX
KW Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;
KW FSa; FSb; subfragment; antibody; treatment; spongiform encephalopathy;
KW human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
KW immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
KW resistance.
XX
OS Synthetic.
XX
PN WO9311155-A.
XX
PD 10-JUN-1993.
XX
PF 03-DEC-1992; 92WO-GB02246.
XX
PR 03-DEC-1991; 91GB-0025747.
PR 10-JUL-1992; 92GB-0014663.
XX
PA (PROT-) PROTEUS MOLECULAR DESIGN LTD.
XX
PI Fishleigh RV, Mee RP, Robson B;
XX
DR WPI; 1993-196994/24.
XX
PT New polypeptide(s) contg. antigenic site of prion protein -

```
PT   useful for treatment and diagnosis of mammalian encephalopathies
PT   e.g. Creutzfeld-Jacob disease and kuru
XX
PS   Claim 29; Page 74; 82pp; English.
XX
CC   The sequences given in AAR38041-48 represent polypeptides which are
CC   derived from an antigenic site, region F, of a prion protein.  Prion
CC   proteins comprise six regions of interest (A-F), and two related frame
CC   shift peptides sequences caused by a repeating section in region E
CC   having a nucleic acid coding sequence frame shift mutation of +1 (FSa)
CC   or -1 (FSb).  These peptides (see also AAR38041-48) and antibodies
CC   raised against these may be used to treat or prevent spongiform
CC   encephalopathy in humans, sheep or cattle.  They can be used to block
CC   cellular binding and aggregation of prion proteins and to stimulate the
CC   mammalian immune system.  These peptides may be used to distinguish
CC   between the normal form of prion protein (PrPc) and the
CC   scrapie-associated form (PrPsc). These peptides may include rare or
CC   synthetic amino acids or a ratio- inverso peptide modification to improve
CC   resistance to enzymatic degradation.
XX
SQ   Sequence   15 AA;


  Query Match             100.0%;  Score 72;  DB 14;  Length 15;
  Best Local Similarity   100.0%;  Pred. No. 8.2e-07;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db      1 citqyqresqayy 13


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AAB69083
ID   AAB69083 standard; peptide; 17 AA.
XX
AC   AAB69083;
XX
DT   23-APR-2001  (first entry)
XX
DE   Bovine prion protein peptide SEQ ID NO:3.
XX
KW   Monoclonal antibody; detection; prion protein; TSE; infection;
KW   transmissible spongiform encephalopathy; scrapie; bovine encephalopathy;
KW   chronic wasting disease; PrP-Sc.
XX
OS   Bos taurus.
XX
PN   WO200105426-A1.
XX
PD   25-JAN-2001.
XX
PF   14-JUL-2000; 2000WO-US19211.
XX
PR   15-JUL-1999;   99US-0353348.
XX
PA   (USDA ) US DEPT OF AGRICULTURE.
XX
PI   O'Rourke KI;
XX
DR   WPI; 2001-159477/16.
XX
PT   Monoclonal antibodies for detecting prior proteins as an indication of
PT   transmissible spongiform encephalopathies, specifically binds to
PT   conserved group of prior proteins -
XX
PS   Example 2; Page 12; 25pp; English.
XX
CC   The present invention describes a monoclonal antibody (I) which
CC   specifically binds to a conserved epitope of prion proteins, which is
CC   capable of binding prion protein (PrP)-Sc protein in fixed or unfixed
CC   tissue that has been treated to unmask the group to PrP-Sc protein and
CC   eliminate availability of a corresponding group of PrP-Cellular. (I) can
CC   be used in immunoassays to detect PrP-Sc proteins in animal or human,
CC   including ruminant livestock, cats, mink and non-human primates, sheep,
CC   goat, cattle, mule deer and elk, as an indication of the presence of
CC   transmissible spongiform encephalopathies (TSE). Presence of PrP-Sc
CC   indicates the scrapie-, bovine encephalopathy- or chronic wasting
CC   disease-infected animals. The antibodies provide early detection of
CC   PrP-Sc and for preclinical diagnosis of TSE. The present sequence
CC   represents a prion protein peptide which is used in an example from
CC   the present invention.
XX
SQ   Sequence   17 AA;


  Query Match             100.0%;  Score 72;  DB 22;  Length 17;
  Best Local Similarity   100.0%;  Pred. No. 9.4e-07;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db      1 citqyqresqayy 13


RESULT   3
AAR38042
ID   AAR38042 standard; protein; 22 AA.
XX
AC   AAR38042;
XX
DT   14-OCT-1993  (first entry)
XX
DE   Bovine prion protein region F #2.
XX
KW   Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;
KW   FSa; FSb; subfragment; antibody; treatment; spongiform encephalopathy;
KW   human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
KW   immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
KW   resistance.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /note= "One or more residues or may be absent"
FT   Misc-difference 2
FT                   /note= "May be absent"
FT   Misc-difference 3
FT                   /note= "May be absent"
FT   Misc-difference 4
FT                   /note= "May be absent"
FT   Misc-difference 5
FT                   /note= "May be absent"
FT   Misc-difference 18
FT                   /note= "May be absent"
FT   Misc-difference 19
FT                   /note= "May be absent"
FT   Misc-difference 20
FT                   /note= "May be absent"
FT   Misc-difference 21
FT                   /note= "May be absent"
FT   Misc-difference 22
FT                   /note= "One or more residue or may be absent"
XX
PN   WO9311155-A.
XX
PD   10-JUN-1993.
XX
PF   03-DEC-1992;   92WO-GB02246.
XX
PR   03-DEC-1991;   91GB-0025747.
PR   10-JUL-1992;   92GB-0014663.
XX
PA   (PROT-) PROTEUS MOLECULAR DESIGN LTD.
XX
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```
PI   Fishleigh RV,  Mee RP,  Robson B;
XX
DR   WPI; 1993-196994/24.
XX
PT   New polypeptide(s) contg. antigenic site of prion protein -
PT   useful for treatment and diagnosis of mammalian encephalopathies
PT   e.g. Creutzfeld-Jacob disease and kuru
XX
PS   Claim 28; Page 74; 82pp; English.
XX
CC   The sequences given in AAR38041-48 represent polypeptides which are
CC   derived from an antigenic site, region F, of a prion protein.  Prion
CC   proteins comprise six regions of interest (A-F), and two related frame
CC   shift peptides sequences caused by a repeating section in region E
CC   having a nucleic acid coding sequence frame shift mutation of +1 (FSa)
CC   or -1 (FSb).  These peptides (see also AAR38041-48) and antibodies
CC   raised against these may be used to treat or prevent spongiform
CC   encephalopathy in humans, sheep or cattle.  They can be used to block
CC   cellular binding and aggregation of prion proteins and to stimulate the
CC   mammalian immune system.  These peptides may be used to distinguish
CC   between the normal form of prion protein (PrPc) and the
CC   scrapie-associated form (PrPsc). These peptides may include rare or
CC   synthetic amino acids or a ratio- inverso peptide modification to improve
CC   resistance to enzymatic degradation.
XX
SQ   Sequence   22 AA;


  Query Match             100.0%;  Score 72;  DB 14;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db      3 citqyqresqayy 15


RESULT   4
AAR38044
ID   AAR38044 standard; protein; 22 AA.
XX
AC   AAR38044;
XX
DT   14-OCT-1993  (first entry)
XX
DE   Ovine prion protein region F #2.
XX
KW   Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc;
KW   FSa; FSb; subfragment; antibody; treatment; spongiform encephalopathy;
KW   human; sheep; cattle; cellular binding; aggregation; mammal; scrapie;
KW   immune system; PrPsc; ratio-inverso peptide; enzymatic degradation;
KW   resistance.
XX
OS   Synthetic.
XX
FH   Key             Location/Qualifiers
FT   Misc-difference 1
FT                   /note= "One or more residues or may be absent"
FT   Misc-difference 2
FT                   /note= "May be absent"
FT   Misc-difference 3
FT                   /note= "May be absent"
FT   Misc-difference 4
FT                   /note= "May be absent"
FT   Misc-difference 5
FT                   /note= "May be absent"
FT   Misc-difference 18
FT                   /note= "May be absent"
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FT   Misc-difference 22
FT                   /note= "One or more residue or may be absent"
XX
PN   WO9311155-A.
XX
PD   10-JUN-1993.
XX
PF   03-DEC-1992;   92WO-GB02246.
XX
PR   03-DEC-1991;   91GB-0025747.
PR   10-JUL-1992;   92GB-0014663.
XX
PA   (PROT-) PROTEUS MOLECULAR DESIGN LTD.
XX
PI   Fishleigh RV,  Mee RP,  Robson B;
XX
DR   WPI; 1993-196994/24.
XX
PT   New polypeptide(s) contg. antigenic site of prion protein -
PT   useful for treatment and diagnosis of mammalian encephalopathies
PT   e.g. Creutzfeld-Jacob disease and kuru
XX
PS   Claim 28; Page 74; 82pp; English.
XX
CC   The sequences given in AAR38041-48 represent polypeptides which are
CC   derived from an antigenic site, region F, of a prion protein.  Prion
CC   proteins comprise six regions of interest (A-F), and two related frame
CC   shift peptides sequences caused by a repeating section in region E
CC   having a nucleic acid coding sequence frame shift mutation of +1 (FSa)
CC   or -1 (FSb).  These peptides (see also AAR38041-48) and antibodies
CC   raised against these may be used to treat or prevent spongiform
CC   encephalopathy in humans, sheep or cattle.  They can be used to block
CC   cellular binding and aggregation of prion proteins and to stimulate the
CC   mammalian immune system.  These peptides may be used to distinguish
CC   between the normal form of prion protein (PrPc) and the
CC   scrapie-associated form (PrPsc). These peptides may include rare or
CC   synthetic amino acids or a ratio- inverso peptide modification to improve
CC   resistance to enzymatic degradation.
XX
SQ   Sequence   22 AA;


  Query Match             100.0%;  Score 72;  DB 14;  Length 22;
  Best Local Similarity   100.0%;  Pred. No. 1.2e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db      3 citqyqresqayy 15


RESULT   5
AAB69085
ID   AAB69085 standard; peptide; 26 AA.
XX
AC   AAB69085;
XX
DT   23-APR-2001  (first entry)
XX
DE   Prion protein peptide SEQ ID NO:7.
XX
KW   Monoclonal antibody; detection; prion protein; TSE; infectious
KW   transmissible spongiform encephalopathy; scrapie; bovine encephalopathy;
KW   chronic wasting disease; PrP-Sc.
XX
OS   Ovis aries.
XX
PN   WO200105426-A1.
XX
PD   25-JAN-2001.
XX
PF   14-JUL-2000; 2000WO-US19211.
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XX
PR   15-JUL-1999;   99US-0353348.
XX
PA   (USDA ) US DEPT OF AGRICULTURE.
XX
PI   O'Rourke KI;
XX
DR   WPI; 2001-159477/16.
XX
PT   Monoclonal antibodies for detecting prior proteins as an indication of
PT   transmissible spongiform encephalopathies, specifically binds to
PT   conserved group of prior proteins -
XX
PS   Example 2; Page 13; 25pp; English.
XX
CC   The present invention describes a monoclonal antibody (I) which
CC   specifically binds to a conserved epitope of prion proteins, which is
CC   capable of binding prion protein (PrP)-Sc protein in fixed or unfixed
CC   tissue that has been treated to unmask the group to PrP-Sc protein and
CC   eliminate availability of a corresponding group of PrP-Cellular. (I) can
CC   be used in immunoassays to detect PrP-Sc proteins in animal or human,
CC   including ruminant livestock, cats, mink and non-human primates, sheep,
CC   goat, cattle, mule deer and elk, as an indication of the presence of
CC   transmissible spongiform encephalopathies (TSE). Presence of PrP-Sc
CC   indicates the scrapie-, bovine encephalopathy- or chronic wasting
CC   disease-infected animals. The antibodies provide early detection of
CC   PrP-Sc and for preclinical diagnosis of TSE. The present sequence
CC   represents a prion protein peptide which is used in an example from
CC   the present invention.
XX
SQ   Sequence   26 AA;


  Query Match             100.0%;  Score 72;  DB 22;  Length 26;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-06;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db      5 citqyqresqayy 17


RESULT   6
AAB07317
ID   AAB07317 standard; protein; 217 AA.
XX
AC   AAB07317;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Cattle prion protein sequence.
XX
KW   Cattle; prion protein; transmissible spongiform encephalopathy;
KW   bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.
XX
OS   Bos bovis.
XX
FH   Key             Location/Qualifiers
FT   Region          37..79
FT                   /note= "Repeat region consisting of tandem repeats
FT                   of repeat unit: PHGGGWGQ (AAB07319)"
FT   Disulfide-bond  166..201
FT   Modified-site   217
FT                   /note= "C-terminal phospho-inositol glycolipid
FT                   membrane anchor (-GPI)"
XX
PN   WO200029850-A1.
XX
PD   25-MAY-2000.
XX
PF   27-OCT-1999;   99WO-FI00897.
XX
PR   17-NOV-1998;   98FI-0002481.
XX
PA   (WALL-) WALLAC OY.
PA   (BBSR-) BBSRC OFFICE.
XX
PI   Hope J,  Barnard GJR,  Birkett CR;
XX
DR   WPI; 2000-387880/33.
XX
PT   Novel immunoassay for prion protein, used for the determination of
PT   transmissible spongiform encephalopathies in bovines -
XX
PS   Disclosure; Page 42-43; 50pp; English.
XX
CC   The present sequence is the cattle prion protein (PrP) sequence.
CC   Conversion of the normal cellular form of PrP into an aggregated,
CC   insoluble isoform is implicated in the pathogenesis of Transmissible
CC   Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
CC   Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease
CC   (CJD) and Gerstmann-Straussler-Sheinker syndrome (GSS). The concentration
CC   of this protein in body fluid or tissue samples may be measured by an
CC   assay of the present invention, in which a PrP epitope is captured by an
CC   antibody, which is then detected. The presence of PrP indicates BSE. PrP
CC   epitopes (AAB07320-B07326) are derived from the protease resistant core
CC   of PrP that is occluded when the PrP is in an aggregated state.
XX
SQ   Sequence   217 AA;


  Query Match             100.0%;  Score 72;  DB 21;  Length 217;
  Best Local Similarity   100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    201 citqyqresqayy 213


RESULT   7
AAB07328
ID   AAB07328 standard; protein; 217 AA.
XX
AC   AAB07328;
XX
DT   17-OCT-2000  (first entry)
XX
DE   Cattle prion protein sequence.
XX
KW   Cattle; prion protein; transmissible spongiform encephalopathy;
KW   bovine spongiform encephalopathy; TSE diagnosis; PrP.
XX
OS   Bos bovis.
XX
FH   Key             Location/Qualifiers
FT   Region          37..79
FT                   /note= "Repeat region consisting of tandem repeats
FT                   of repeat unit: PHGGGWGQ (AAB07319)"
FT   Disulfide-bond  166..201
FT   Modified-site   217
FT                   /note= "C-terminal phospho-inositol glycolipid
FT                   membrane anchor (-GPI)"
XX
PN   WO200029849-A1.
XX
PD   25-MAY-2000.
XX
PF   27-OCT-1999;   99WO-FI00896.
XX
PR   17-NOV-1998;   98FI-0002480.
XX
PA   (WALL-) WALLAC OY.
PA   (BBSR-) BBSRC OFFICE.
XX
PI   Hope J,  Barnard GJR,  Birkett CR;
```

XX
DR WPI; 2000-399778/34.
XX
PT New immunoassay for prion protein, used for determination of
PT transmissible spongiform encephalopathies in mammals, comprises
PT specific capture antibody -
XX
PS Disclosure; Page 42-43; 50pp; English.
XX
CC The present sequence is the cattle prion protein (PrP) sequence.
CC Conversion of the normal cellular form of PrP into an aggregated,
CC insoluble isoform is implicated in the pathogenesis of Transmissible
CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease
CC (CJD) and Gerstmann-Straussler-Sheinker syndrome (GSS). The concentration
CC of this protein in body fluid or tissue samples may be measured by an
CC assay of the present invention, in which a PrP epitope is captured by an
CC antibody, which is then detected. The presence of PrP indicates TSE. PrP
CC epitopes (AAB07320-B07326) are derived from the protease resistant core
CC of PrP that is occluded when the PrP is in an aggregated state.
XX
SQ Sequence 217 AA;

Query Match 100.0%; Score 72; DB 21; Length 217;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
||||||||||||||
Db 201 citqyqresqayy 213

RESULT 8
AAW70261
ID AAW70261 standard; Protein; 219 AA.
XX
AC AAW70261;
XX
DT 13-NOV-1998 (first entry)
XX
DE Bovine prion protein.
XX
KW Prion protein; PrP; cow; disease-specific prion protein; scrapie; Kuru;
KW prion disease detection; bovine spongiform encephalopathy; therapy;
KW Creutzfeldt-Jakob disease; Gerstmann-Straussler-Scheinker syndrome;
KW Fatal Familial Insomnia.
XX
OS Bos taurus.
XX
PN EP861900-A1.
XX
PD 02-SEP-1998.
XX
PF 21-FEB-1997; 97EP-0102837.
XX
PR 21-FEB-1997; 97EP-0102837.
XX
PA (ERZI-) ERZIEHUNGSDIREKTION CANTON ZURICH.
XX
PI Korth C, Moser M, Oesch B, Stierli B, Streit P;
XX
DR WPI; 1998-449112/39.
DR N-PSDB; AAV33005.
XX
PT New monoclonal antibodies specifically bind to disease-specific
PT prion proteins - used to diagnose, prevent and treat prion diseases
PT e.g. bovine, spongiform encephalopathy, scrapie and
PT Creutzfeldt-Jakob disease
XX
PS Disclosure; Page 20-21; 35pp; English.
XX
CC This sequence represents the bovine prion protein (PrP). The protein
CC is targeted by the antibody of the invention, which is a monoclonal
CC antibody or fragment capable of specifically binding to native and
CC denatured normal (PrPc) and disease-specific prion protein (PrPsc) in an
CC antigen-antibody complex. The antibodies that immunoreact with
CC disease-specific prion proteins are used in test kits for the diagnosis
CC of prion diseases and to detect disease-specific PrP in biological
CC material by treatment of a probe of the material with proteinase K and
CC then with the monoclonal antibody. The monoclonal antibodies are used for
CC the prevention and treatment of prion diseases and to clear biological
CC material from prions. The antibodies are used to diagnose, treat and
CC prevent e.g. bovine spongiform encephalopathy, scrapie in sheep and
CC Creutzfeldt-Jakob disease, Gerstmann-Straussler-Scheinker syndrome, Fatal
CC Familial Insomnia and Kuru in humans. The diagnostic method allows mass
CC screening of infected cattle tissue at a subclinical stage and reduces
CC possible human health risks.
XX
SQ Sequence 219 AA;

Query Match 100.0%; Score 72; DB 19; Length 219;
Best Local Similarity 100.0%; Pred. No. 1.5e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
||||||||||||||
Db 202 citqyqresqayy 214

RESULT 9
AAW93571
ID AAW93571 standard; protein; 219 AA.
XX
AC AAW93571;
XX
DT 17-JUN-1999 (first entry)
XX
DE Bovine rbPrP protein.
XX
KW Prion protein; Prp; rbPrP; disease specific isoform; PrP(Sc); vaccine;
KW treatment; diagnosis; Scrapie; BSE; Kuru; Creutzfeldt-Jacob disease;
KW detection.
XX
OS Bos taurus.
XX
PN DE19741607-A1.
XX
PD 25-MAR-1999.
XX
PF 20-SEP-1997; 97DE-1041607.
XX
PR 20-SEP-1997; 97DE-1041607.
XX
PA (PRIO-) PRIONICS AG.
XX
PI Korth C, Moser M, Oesch B;
XX
DR WPI; 1999-205964/18.
XX
PT New polypeptides comprising prion protein sequences - useful for
PT diagnosis or treatment of prion diseases e.g. Scrapie, BSE and
PT Creutzfeldt-Jacob disease
XX
PS Claim 13; Page 6-7; 12pp; German.
XX
CC This invention describes a synthetic polypeptide comprising at least one
CC "defined" PrP (prion protein) sequence or sequences derived therefrom
CC that are recognised by a disease specific isoform of PrP, e.g. PrP(Sc),
CC binding substances. The new prion protein polypeptides are useful in
CC vaccines and pharmaceuticals for treatment of, and as diagnostic agents
CC for diagnosis of Scrapie, BSE, Kuru and Creutzfeldt-Jacob disease. The
CC polypeptides are also useful in pharmaceutical or chemical libraries for
CC detection of PrP(Sc)-specific agents.
XX

```
SQ   Sequence   219 AA;

  Query Match            100.0%;  Score 72;  DB 20;  Length 219;
  Best Local Similarity  100.0%;  Pred. No. 1.5e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    202 citqyqresqayy 214


RESULT  10
AAR86717
ID   AAR86717 standard; protein; 255 AA.
XX
AC   AAR86717;
XX
DT   15-OCT-1996  (first entry)
XX
DE   Sheep prion protein, HuPrP.
XX
KW   Chimeric gene; chimeric prion; transgenic animal; diagnosis;
KW   spongiform encephalopathy; PrP; central nervous system; CNS;
KW   Creutzfeld-Jakob disease; CJD; BSE.
XX
OS   Ovis aries.
XX
PN   WO9531466-A1.
XX
PD   23-NOV-1995.
XX
PF   10-APR-1995;   95WO-US04426.
XX
PR   13-MAY-1994;   94US-0242188.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Prusiner SB,  Scott MR,  Telling G;
XX
DR   WPI; 1996-010868/01.
XX
PT   Chimeric prion protein gene - for formation of a transgenic animal
PT   susceptible to prion infection by prion(s) normally specific for a
PT   different species
XX
PS   Disclosure; Page 43-44; 65pp; English.
XX
CC   Pathogenic prions in a sample can be detected by injecting the
CC   sample to be tested into a transgenic mouse.  The mouse genome
CC   includes a chimeric PrP gene in which the gene includes a portion of
CC   a gene of the animal (e.g. sheep) in danger of infection from prions
CC   in the sample.  Preferred transgenic mice express a chimeric prion
CC   protein (PrP) in which a segment of the mouse PrP, MoPrP, is
CC   replaced with the corresponding sheep PrP sequence.
XX
SQ   Sequence   255 AA;


  Query Match            100.0%;  Score 72;  DB 17;  Length 255;
  Best Local Similarity  100.0%;  Pred. No. 1.8e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    216 citqyqresqayy 228


RESULT  11
AAW69662
ID   AAW69662 standard; protein; 255 AA.
XX
AC   AAW69662;
XX
DT   19-OCT-1998  (first entry)
XX
DE   Sheep prion protein BoPrP.
XX
KW   Sheep; prion protein; PrP; transgenic animal; artificial gene;
KW   Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.
XX
OS   Ovis sp.
XX
PN   US5792901-A.
XX
PD   11-AUG-1998.
XX
PF   30-JUN-1996;   96US-0692892.
XX
PR   30-JUL-1996;   96US-0692892.
PR   13-MAY-1994;   94US-0242188.
PR   31-JUL-1995;   95US-0509261.
PR   31-AUG-1995;   95US-0521992.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Prusiner SB,  Scott MR,  Telling GC;
XX
DR   WPI; 1998-456207/39.
XX
PT   Transgenic mouse with altered PrP gene - for detecting
PT   disease-causing prions
XX
PS   Example 8; Fig 5; 37pp; English.
XX
CC   A transgenic mouse has been developed which comprises a genome in which
CC   both alleles of an endogenous PrP (prion protein) gene of the mouse are
CC   ablated, the genome containing operatively inserted all exogenous
CC   non-mouse PrP gene. The mouse is susceptible to infection with prions
CC   which generally only infect a genetically diverse mammal due to the
CC   presence of the exogenous PrP gene and ablated endogenous PrP gene. It
CC   exhibits symptoms of prion disease within 200 days or less after
CC   inoculation with prions which generally only infect a genetically
CC   diverse mammal. Also described in the present invention are: (A) a
CC   method of producing the transgenic mouse; and (B) determining the
CC   presence of infectious prions in a sample obtained from a bovine. The
CC   transgenic mouse is used to detect for Creutzfeldt Jakob disease (CJD)
CC   a fatal neurodegenerative disease of humans caused by prions. The
CC   present sequence represents sheep prion protein (ShPrP), from the
CC   present invention.
XX
SQ   Sequence   255 AA;


  Query Match            100.0%;  Score 72;  DB 19;  Length 255;
  Best Local Similarity  100.0%;  Pred. No. 1.8e-05;
  Matches   13;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy      1 CITQYQRESQAYY 13
          |||||||||||||
Db    216 citqyqresqayy 228


RESULT  12
AAW85903
ID   AAW85903 standard; peptide; 255 AA.
XX
AC   AAW85903;
XX
DT   12-FEB-1999  (first entry)
XX
DE   Sheep prion protein (PrP) sequence.
XX
KW   PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
KW   Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
KW   cosmetic; therapeutic; sheep.
```

XX
OS Ovis sp.
XX
PN US5846533-A.
XX
PD 08-DEC-1998.
XX
PF 13-SEP-1996; 96US-0713939.
XX
PR 13-SEP-1996; 96US-0713939.
PR 14-SEP-1995; 95US-0528104.
XX
PA (SCRI) SCRIPPS RES INST.
PA (REGC) UNIV CALIFORNIA.
XX
PI Burton DR, Prusiner SB, Williamson RA;
XX
DR WPI; 1999-058996/05.
XX
PT Antibody specific for scrapie isoform of prion protein - useful for
PT diagnosis and therapy
XX
PS Disclosure; Columns 43-46; 58pp; English.
XX
CC This represents a sheep prion protein (PrP) sequence. The invention
CC relates to an antibody that is capable of binding to native PrP(Sc), the
CC scrapie isoform of PrP. The antibody is produced by a method that
CC comprises synthesising a library of antibodies on phages, contacting the
CC phages with a composition containing PrP proteins, isolating phages that
CC bind to native PrP(Sc) in situ, obtaining an antibody from the phages,
CC and optionally analysing the phages to determined a nucleic acid sequence
CC encoding an amino acid sequence to which the native PrP(Sc) binds. The
CC antibody is used to detect disease-associated PrP, especially in
CC Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They
CC can also be used to neutralise the infectivity of PrP(Sc). Assays using
CC the antibodies can be used to screen for disease-associated PrP in
CC pharmaceutical products, foods and cosmetics or for therapeutic purposes.
XX
SQ Sequence 255 AA;

Query Match 100.0%; Score 72; DB 20; Length 255;
Best Local Similarity 100.0%; Pred. No. 1.8e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
||||||||||||
Db 216 citqyqresqayy 228

RESULT 13
AAP93674
ID AAP93674 standard; protein; 256 AA.
XX
AC AAP93674;
XX
DT 31-MAY-1990 (first entry)
XX
DE Sheep PrP gene for scrapie susceptibility.
XX
KW Scrapie; PrP gene; Bovine spongiform encephalopathy; BSE;
KW scrapie associated fibrils; SAF.
XX
OS Cricetulus sp.
XX
PN WO8911545-A.
XX
PD 30-NOV-1989.
XX
PF 15-MAY-1989; 89WO-GB00522.
XX
PR 17-MAY-1988; 88GB-0011608.
XX
PA (ANIM-) ANIMAL HEALTH LTD.
XX
PI Hope J, Hunter N;
XX
DR WPI; 1989-370736/50.
DR N-PSDB; AAN92735.
XX
PT Detecting susceptibility to scrapie in sheep, cattle and goats -
PT by analysing blood or tissue for polymorphism linked to
PT susceptibility, pref. using DNA hybridisation probe.
XX
PS Disclosure; ; 46pp; English.
XX
CC Sheep PrP gene product, in negative line sheep (scrapie resistant) a
CC 5.0 kb HindIII hybridised to probe pEA974, positive line sheep showed
CC either a 3.4 kb HindIII or both 5.0 and 3.4 kb fragments.
CC The specification gives three reading frames after base 1410.
CC See also AAN92734.
XX
SQ Sequence 256 AA;

Query Match 100.0%; Score 72; DB 10; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.8e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
||||||||||||
Db 217 citqyqresqayy 229

RESULT 14
AAB72362
ID AAB72362 standard; Peptide; 256 AA.
XX
AC AAB72362;
XX
DT 17-MAY-2001 (first entry)
XX
DE Sheep prion protein cellular form (PrPc) amino acid sequence.
XX
KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW prion disease; spongiform encephalopathies; Scrapie; sheep;
KW bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS Ovis ammon aries.
XX
FH Key Location/Qualifiers
FT Region 176..221
FT /note= "Stable region, specifically claimed in claim 3"
XX
PN WO200107479-A2.
XX
PD 01-FEB-2001.
XX
PF 25-JUL-2000; 2000WO-GB02873.
XX
PR 27-JUL-1999; 99GB-0017491.
PR 30-JUL-1999; 99GB-0017878.
XX
PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;
XX
DR WPI; 2001-168538/17.
XX
PT New prion peptide for treating, preventing and/or diagnosing prion
PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT cows and Creutzfeldt-Jakob disease in humans -
XX
PS Claim 3; Fig 5; 69pp; English.
XX
CC This invention relates to a peptide fragment of a cellular form of prion

CC protein PrPc located around a disulphide bond found in PrPc. The stable
CC structure is a specific marker of PrPc but not soluble prion protein
CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC or binding agent that binds PrPc. The antibody is used to detect or
CC remove PrPc, and may be used in preventative medicine. The antibody may
CC be used in the prevention, treatment or diagnosis of a prion disease,
CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC (CJD) in humans. The present sequence represents the cellular form of
CC sheep prion protein, the stable region of the protein may be used
CC in the production of anti-PrPc antibodies.
XX
SQ Sequence 256 AA;

Query Match 100.0%; Score 72; DB 22; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.8e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
||||||||||||||
Db 217 citqyqresqayy 229

RESULT 15
AAB72363
ID AAB72363 standard; Peptide; 256 AA.
XX
AC AAB72363;
XX
DT 17-MAY-2001 (first entry)
XX
DE Antelope prion protein cellular form (PrPc) amino acid sequence.
XX
KW Prion protein; cellular form; PrPc; stable region; antibody; BSE; CJD;
KW prion disease; spongiform encephalopathies; Scrapie; antelope;
KW bovine spongiform encephalopathy; BSE; Creutzfeldt-Jakob disease.
XX
OS Artiodactyla.
XX
FH Key Location/Qualifiers
FT Region 176..221
FT /note= "Stable region, specifically claimed in claim 3"
XX
PN WO200107479-A2.
XX
PD 01-FEB-2001.
XX
PF 25-JUL-2000; 2000WO-GB02873.
XX
PR 27-JUL-1999; 99GB-0017491.
PR 30-JUL-1999; 99GB-0017878.
XX
PA (IMCO-) IMPERIAL COLLEGE INNOVATIONS LTD.
XX
PI Collinge J, Clarke AR, Waltho JP, Jackson GS, Hosszu LLP;
XX
DR WPI; 2001-168538/17.
XX
PT New prion peptide for treating, preventing and/or diagnosing prion
PT diseases e.g. scrapie in sheep, bovine spongiform encephalopathies in
PT cows and Creutzfeldt-Jakob disease in humans
XX
PS Claim 3; Fig 5; 69pp; English.
XX
CC This invention relates to a peptide fragment of a cellular form of prion
CC protein PrPc located around a disulphide bond found in PrPc. The stable
CC structure is a specific marker of PrPc but not soluble prion protein
CC (PrPsc). The PrPc peptide sequences can be used to generate an antibody
CC or binding agent that binds PrPc. The antibody is used to detect or
CC remove PrPc, and may be used in preventative medicine. The antibody may
CC be used in the prevention, treatment or diagnosis of a prion disease,
CC e.g. spongiform encephalopathies, such as Scrapie in sheep, bovine
CC spongiform encephalopathies (BSE) in cows, and Creutzfeldt-Jakob disease
CC (CJD) in humans. The present sequence represents the cellular form of
CC antelope prion protein, the stable region of the protein may be used
CC in the production of anti-PrPc antibodies.
XX
SQ Sequence 256 AA;

Query Match 100.0%; Score 72; DB 22; Length 256;
Best Local Similarity 100.0%; Pred. No. 1.8e-05;
Matches 13; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 CITQYQRESQAYY 13
||||||||||||||
Db 217 citqyqresqayy 229

Search completed: October 25, 2001, 08:51:32
Job time: 310 sec